ORDER NO. SD790[illegible]-1606

Service Manual

SL-1700MK2/
SL-1710MK2

Direct Drive Automatic Turntable System

SL-1700MK2

(XG), (XGF), (XGB),
(E), (XA), (XGE)

SL-1700MK2A

(XA), (XG), (E)

SL-1710MK2

(XG), (E)

SL-1710MK2A

(XG) , (E)

- The model SL-1700MK2 (XG), SL-1700MK2A (XG), SL-1710MK2 (XG) and SL-1710MK2A (XG) are available in European only.
- The model SL-1700MK2 (XGF) is available in France only.
- The model SL-1700MK2 (XGB) is available in Belgium only.
- The model SL-1700MK2 (E), SL-1700MK2A (E), SL-1710MK2 (E) and SL-1710MK2 (E) are available in Scandinavia only.
- The model SL-1700MK2 (XA) and SL-1700MK2A (XA) are available in Asia, Latin America, Middle East and Africa only.
- The model SL-1700MK2 (XGE) is available in United Kingdom only.
- SL-1700MK2 and SL-1700MK2A are of silver finish.
- SL-1710MK2 and SL-1710MK2A are of black finish.

SPECIFICATIONS (Specifications are subject to change without notice.)

General

Power supply:	~110-120/220 –240V, AC 50 or 60 Hz
Power consumption:	17.5W
Dimensions: (W x H x D)	45.3 x 14.9 x 39.9 cm (17-27/32" x 5-7/8" x 15-45/64")
Weight:	10 kg (22 lb.)

Turntable section

Type:	Quartz direct drive Automatic turntable Auto return Auto stop
Drive method:	Direct drive
Motor:	Brushless DC motor
Turntable platter:	Aluminum die-cast Diameter 33.2 cm (13-5/64") Weight 2 kg (4.4 lb.)
Turntable speeds:	33-1/3 rpm and 45 rpm
Pitch control:	±6% range
Starting torque:	1.5 kg·cm (1.3 lb·in)
Build-up characteristics:	0.7 sec. from standstill to 33-1/3 rpm
Braking system:	Electronic brake
Speed change due to load torque:	0% within 1.0 kg·cm (0.87 lb·in)
Wow and flutter:	0.01% WRMS* 0.025% WRMS (JIS C5521) ±0.035% peak (IEC 98A Weighted)

*This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter. Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble:	–56 dB (IEC 98A Unweighted) –78 dB (IEC 98A Weighted)

Tonearm section

Type:	Universal
Effective length:	230 mm (9-1/16")
Arm height adjustment range:	
Overhang:	15 mm (19/32")
Effective mass:	12 g (without cartridge)
Tracking error angle:	Within 2°32' at the outer groove of 30 cm (12") record Within 0°32' at the inner groove of 30 cm (12") record
Offset angle:	22°
Friction:	Less than 7 mg (lateral, vertical)
Stylus pressure adjustment range:	0-2.5 g
Applicable cartridge weight range:	6-10 g 13.5-17.5 g (including headshell)
(with auxially weight):	9.5-13 g 17-20.5 g (including headshell)
(with shell weight):	3.5-6.5 g 11-14 g (including headshell)
Headshell weight:	7.5 g

Cartridge section

Model No.:	EPC-207C
Type:	Moving magnet
Frequency response:	20 Hz to 25 kHz 20 Hz to 15 kHz ±2 dB
Output voltage:	3 mV at 1 kHz 5 cm/s. zero to peak lateral velocity [8.5 mV at 1 kHz 10 cm/s. zero to peak 45° velocity (DIN 45500)]
Channel separation:	25 dB at 1 kHz
Channel balance:	Within 2 dB at 1 kHz
Compliance (dynamic):	10 x 10^6 cm/dyne at 100 Hz
Stylus pressure:	1.75 ±0.25 g (17.5 ±2.5 mN)
Load impedance:	47 kΩ to 100 kΩ
Weight:	5.6 g (cartridge only)
Replacement stylus:	EPS-207ED (Elliptical stylus)

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

SL-1700MK2/ SL-1710MK2

TECHNISCHE DATEN (Änderungen der technischen Daten vorbehalten.)

Allgemeine Daten

Stromversorgung:	~110-120/220-240 V, 50/60 Hz Wechselstrom
Leistungsaufnahme:	17,5 W
Abmessungen (B x H x T):	45,3 x 14,9 x 29,9 cm
Gewicht:	10 kg

Plattenspieler

Typ:	Automatischer Plattenspieler Rückführautomatik Stopautomatik Manueller Betrieb
Antrieb:	Direktantrieb
Motor:	Kollektorloser Gleichstrommotor
Plattenteller:	Aluminium-Spritzguß Durchmesser 33,2 cm Gewicht 2 kg
Plattenteller-Drehzahlen:	33-1/3 und 45 U/min
Drehzahl-Feinregulierung:	±6% Einstellbereich
Anlaufdrehmoment:	1,5 kg·cm
Drehzahl-Hochlaufzeit:	0,7 sec vom Stillstand auf 33-1/3 U/min
Bremssystem:	Elektronische Bremse
Drehzahl-Abweichung aufgrund von Lastschwankungen:	0% innerhalb 1,0 kg·cm
Gleichlaufschwankungen:	0,01% WRMS* 0,025% WRMS (JIS C5521) ±0,035% Spitze (IEC 98A bewertet)

*Diese Nennleistung bezieht sich auf das Laufwerk-Bauteil allein, ausschließlich Einflüsse von Schallplatte, Tonabnehmer oder Tonarm, aber einschließlich Plattenteller. Gemessen anhand von Signalen vom eingebauten Frequenzgenerator des Motorbauteils.

Rumpel-Geräusch-spannungsabstand:	–56 dB (IEC 98A unbewertet) –78 dB (IEC 98A bewertet)

Tonarm

Typ:	Universal-Tonarm
Effektive Länge:	230 mm
Tonarmhöhe-Einstellbereich:	Schraubteil: 6mm
Überhang:	15 mm
Effektive Masse:	12 g (ohne Tonabnehmer)
Spurfehlwinkel:	2°32' bei der Einlaufrille einer 30 cm-Platte 0°32' bei der Auslaufrille einer 30 cm-Platte
Kröpfungswinkel:	22°
Lagerreibung:	Weniger als 7 mg (horizontal, vertikal)
Auflagekraft-Einstellbereich:	0-2,5 g
Zulässiger Tonabnehmer-Gewichtbereich:	6-10 g 13,5-17 g (einschließlich Tonarmkopf)
(mit Ersatz-Gegengewicht):	9,5-13 g 17-20,5 g (einschließlich Tonarmkopf)
Gewichtbereich:	3,5-6,5 g
(mit Zusatzgewicht)	11-14 g (einschließlich Tonarmkopf)
Tonarmkopf-Gewicht:	7,5 g

Tonabnehmer

Modell-Nummer:	EPC-207C
Typ:	Magnetischer Tonabnehmer
Frequenzgang:	20 Hz bis 25 kHz 20 Hz bis 15 kHz ±2 dB
Ausgangsspannung:	3 mV bei 1 kHz 5 cm/s. Null-zu-Spitze, Lateral [8,5 mV bei 1 kHz 10 cm/s. Null-zu-Spitze, 45° (DIN 45500)]
Kanaltrennung:	25 dB bei 1 kHz
Kanalabweichung:	Innerhalb 2 dB bei 1 kHz
Nachgiebigkeit (dynamisch):	10 x 10^6 cm/dyn bei 100 Hz
Auflagekraft:	1,75 ±0,25 g (17,5 ±2,5 mN)
Impedanz:	47 kΩ bis 100 kΩ
Gewicht:	5,6 g (ohne Tonarmkopf)
Ersatznadel:	EPS-207ED (Elliptische Nadel)

SPECIFICATIONS (Les spécifications sont susceptibles d'être modifiées sans préavis.)

Généralités

Alimentation:	Alternatif 110-120/220-240V, 50 ou 60 Hz
Consommation:	17, 5 W
Dimensions (L x H x P)	45,3 x 14,9 x 39,3 cm
Poids:	10 kg

Platine de lecture

Type:	Platine automatique Retour automatique Arrêt automatique
Système d'entrainement:	Entraînement direct
Moteur:	Moteur C.C. sans balai
Plateau de lecture:	Aluminium moulé sous pression Diamètre 33,2 cm Poids 2 kg
Vitesses de rotation:	33-1/3 et 45 t/p.m
Réglage d'écart:	Plage de réglage de ±6%
Couple de démarrage:	1,5 kg·cm
Caractéristiques d'augmentation:	0,7 sec. de l'arrêt à 33-1/3 t/p.m.
Système de freinage:	Frein électronique
Variation de vitesse due au couple de charge:	0% en deçà de 1,9 kg·cm
Pleurage et scintillement:	0,01% de valeur efficace* 0,025% de valeur efficace (JIS C5521) ±0,035% de crête (IEC 98A Pondéré)

*Ce régime nominal se rapporte à l'ensemble du tournedisque seul, excluant les effets du disque, de la cellule pick-up ou de bras de lecture, mais comprenant le plateau. Mesuré par l'obtention d'un signal provenant du générateur de fréquences incorporé de l'ensemble du moteur.

Ronflement:	–56 dB (IEC 98A Non pondéré) –78 dB (IEC 98A Pondéré)

Bras de lecture

Type:	Bras de lecture universel
Longueur effective:	230 mm
Portée du réglage de la hauteur du bras:	Partie hélicoïdale 6 mm
Porte-à-faux:	15 mm
Masse réelle:	12 g (sans la cellule pick-up)
Angle d'erreur de piste:	En deçà de 2°32' au sillon extérieur d'un disque de 30 cm En deçà de 0°32' au sillon intérieur d'un disque de 30 cm
Angle de décalage:	22°
Frottement:	Moins de 7 mg (latéral et vertical)
Plage de réglage de la pression d'appui:	0-2,5 g
Gamme du poids de la cellule pick-up utilisable:	6-10 g 13,5-17 g (y compris la coque porte-cellule)
(avec contrepoids de réserve)	9,5-13 g 17-20,5 g (y compris la coque porte-cellule)
(avec contrepoids de la cellule)	3,5-6,5 g 11-14 g (y compris la coque porte-cellule)
Poids de la cellule:	7,5 g

Cellule pick-up

No. du modèle:	EPC-207C
Type:	Aimant mobile
Réponse en fréquence:	20 Hz à 25 kHz 20 Hz à 15 kHz ±2 dB
Tension de sortie:	3 mV à 1 kHz; 5 cm/s. zéro à vitesse latérale de crête (8,5 mV à 1 kHz 10 cm/s., zéro à vitesse 45° de crête [DIN 45500])
Séparation de canal:	25 dB à 1 kHz
Equilibrage des canaux:	En deçà de 2 dB à 1 kHz
Elasticité (dynamique):	10 x 10^6 cm/dyne à 100 Hz
Pression de la pointe de lecture:	1,75 ±0,25 g (17,5 ±2,5 mN)
Impedance de charge:	47 kΩ to 100 kΩ
Poids:	5,6 grammes (cellule seule)
Pointe de lecture de remplacement:	EPS-207ED (Forme elliptique)

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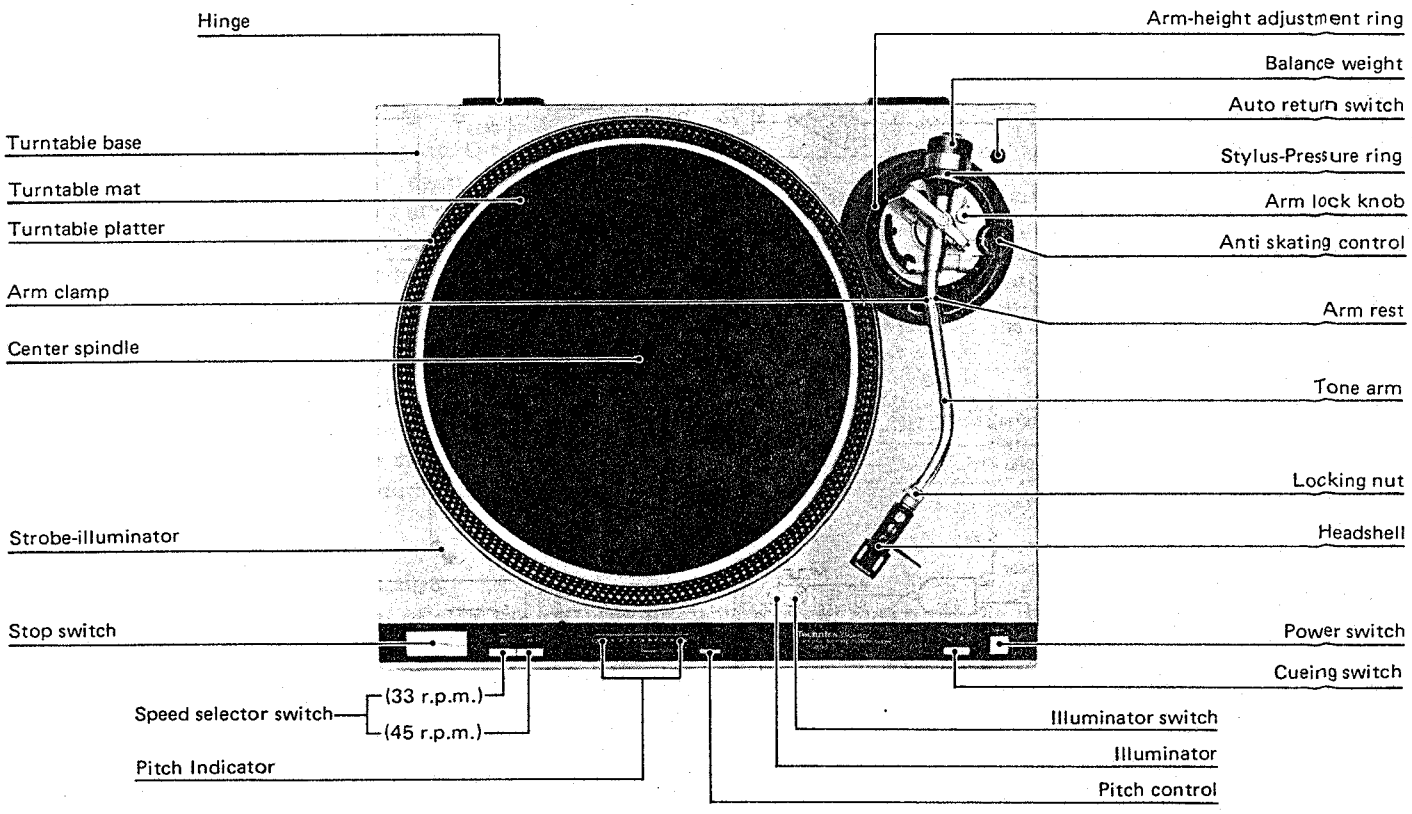
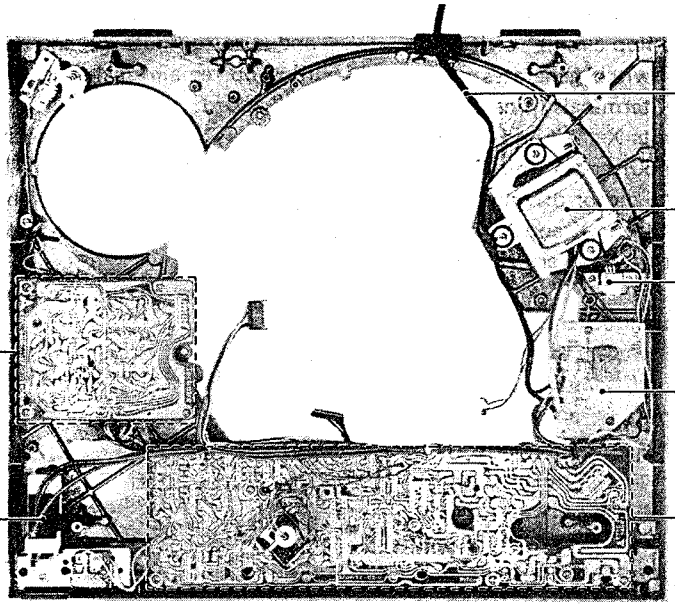
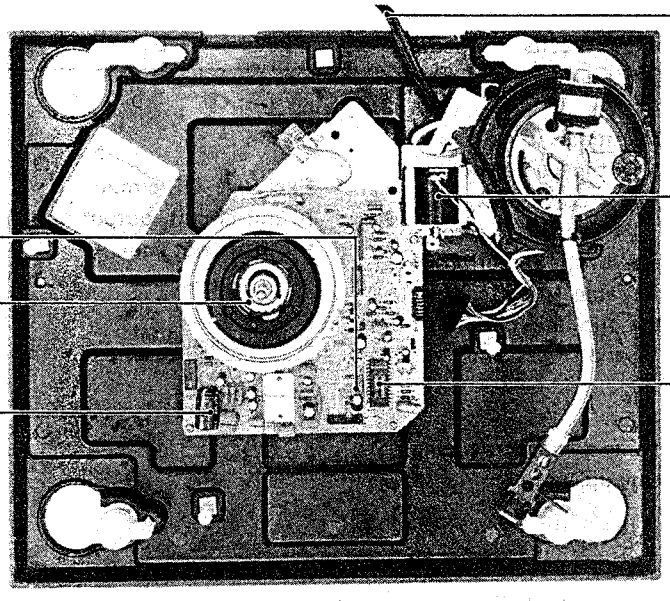
■ LOCATION OF CONTROLS







■ TECHNICAL GUIDE

Arm control circuit

This circuit includes a circuit to control the cueing and returning operation of the arm by using a DC motor, a rest detection circuit which gives a start/stop instruction to the turntable, and a circuit to electrically detect the return position the same as in SL-1300MK2.

1. Cueing operation

Arm switches A and B are turned ON and OFF by the cam interlocked with the cueing mechanism of the arm.
Whether the arm is cued up or down with the cueing switch depressed depends on the positions of these two switches.

- **Cueing down**

  When the arm switch A is OFF, while B is ON or OFF, depressing the cueing switch results in cueing down.

As the arm switch A is OFF, Ⓐ is "H" and Ⓑ is "L". The output of Ⓑ is applied to D terminals (pin 5 and 9 of IC460) of the D flip-flop circuit* of IC460. Then, depressing the cueing switch generates clock pulses which are applied to CK terminals (pins 3 and 11) of IC460, thus the outputs X="L" and Y="H" come out of X (pin 1 of IC460) and Y (pin 12 of IC460). The outputs enter the motor driving circuit to operate the DC motor. Outputs X and Y, motor rotating direction, and arm operation are shown in the Fig. 1.

With the above operations completed, the arm is cued down by the drive motor. However, the motor will continue rotating if the conditions are left unchanged. Therefore, the outputs of arm switches A and B pass through the Exclusive -OR circuit* and generate motor stopping pulses at the next pulse generating circuit in order to apply pulses to S (pin 6 of IC460) and R (pin 10 of IC460) terminals of the flip-flop circuit of IC460 to reset the outputs at X and Y (X="H", Y="L", thus stopping the rotation of the motor.

- **Cueing up**

When the arm switch A is ON, while B is ON or OFF, depressing the cueing switch results in cueing up. As the arm switch A is ON, Ⓐ is "L" and Ⓑ is "H".

The output of Ⓑ is put into D terminals (pins 5 and 9) of IC460. Then, depressing the cueing switch generates clock pulses as in cueing down operation, causing X and Y to become "H" and "L" respectively. Thus, the motor rotates in the direction of cueing up operation as shown in Table 1. After that, reset pulses are applied to the flip-flop circuit of IC460, then outputs at both X and Y become "H" causing the motor to stop.

Note:

Cueing up is possible during cueing down, but cueing down is not possible during cueing up.

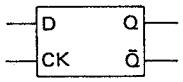
* **D flip-flop circuit**

This circuit includes a D input, a clock input (ck), and two outputs Q and $\bar{Q}$. The outputs of this flip-flop remain unchanged even with D input "L" or "H" added.

However, if a clock pulse is applied to this circuit while it is supplied with a D input, the D input is transmitted to output Q. Therefore, output Q causes the circuit operation to delay by clock pulse equivalence.

The flip-flop circuit and the truth table are shown below.

a) Circuit



b) Truth table

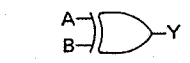
tu		tu+1
D	Qu	Qu+1
L	L	L
L	H	L
H	L	H
H	H	H

Output X	Output Y	Rotating direction	Arm Operation
H	H	Stop	Stop
H	L	Reverse	Cueing up, return
L	H	Normal	Cueing down

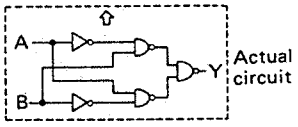
[Fig. 1]

* **Exclusive -OR circuit**

In this circuit, output Y is "H" only when outputs A and B are not equal.



a) Logic circuit



Input		Output
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	L

b) Truth table

2. Rest position detection

When the arm moves off the arm rest, the turntable rotates. Structurally, a coupler using an LED and photo-transistor is located under the arm base; when the arm is on the rest, the LED and photo-transistor are interrupted by the slit, turning the photo-transistor (PH402) off; when the arm is off the rest, the photo-transistor turns on, causing Ⓓ to become "L", then Q455 turns off and a voltage is applied to pin 19 of IC201 to rotate the turntable. Input "L" is applied to pin 9 of IC456 in order to inhibit the operation of the gate so that depressing the stop switch does not cause the arm to operate when the arm is on the rest.

3. Stop operation

If desired to stop the performance, push the stop switch, then the arm returns to the arm rest.

Depressing the stop switch generates ⎍ pulse at Ⓔ.

Ⓘ is "L" when the arm is on the rest, inhibiting the pulse from the stop switch, and it is "H" when the arm is off the rest.

Depressing the stop switch, when Ⓘ is "H", generates ⎎ pulse at Ⓕ. The pulse causes the R-S flip-flop circuit of IC457 and IC458 to reverse, then Ⓖ and Ⓗ respectively becomes "H" and "L", while S (pin 8 of IC460) and S (pin 6 of IC460) terminals of D flip-flop circuit of IC460 become "H" resulting in X="H" and Y="L". The output causes the arm to return. Also, about 0.9 sec. after rest position detection to stop the turntable, ⎎ pulse is applied to Ⓙ of R-S flip-flop circuit of IC457 and IC458, thus resetting the R-S flip-flop (Ⓖ="L",Ⓗ="L").

When the ❶ is H pressing the stop switch causes the arm to start returning irrespective of its position. When the arm is in return operation, the cueing switch does not work because of priority given to the stop operation.

4. Auto return operation

The detection of record end is performed with the optical sensor output, same as in SL-1300MK2; then the arm is returned in the same way as in the above-mentioned stop operation.

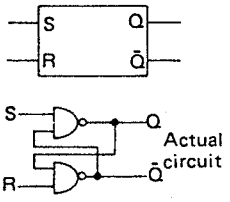
If the arm is in up position (arm switch A is OFF), no pulse is generated at Ⓔ for end detection, therefore auto return operation can not be achieved by shifting the arm.

* **R-S flip-flop circuit**

This circuit includes two inputs S(set), R(Reset), and two outputs Q and $\overline{Q}$.

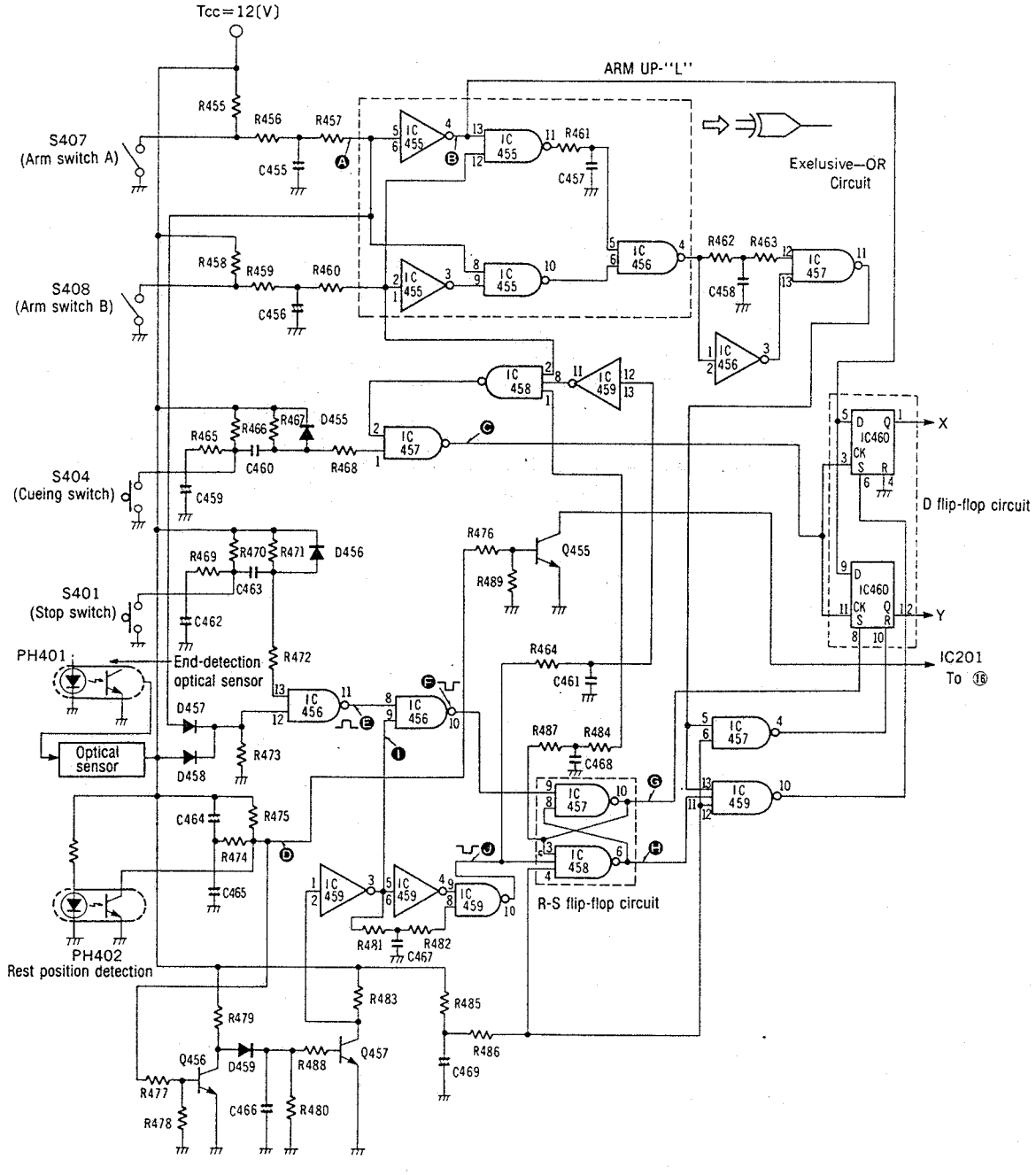
It input S="H", R="L", then Q="L". If S="L", R="H", then Q="H". After determination of the output, changing the input to "H" does not cause the output to change.

a) Circuit

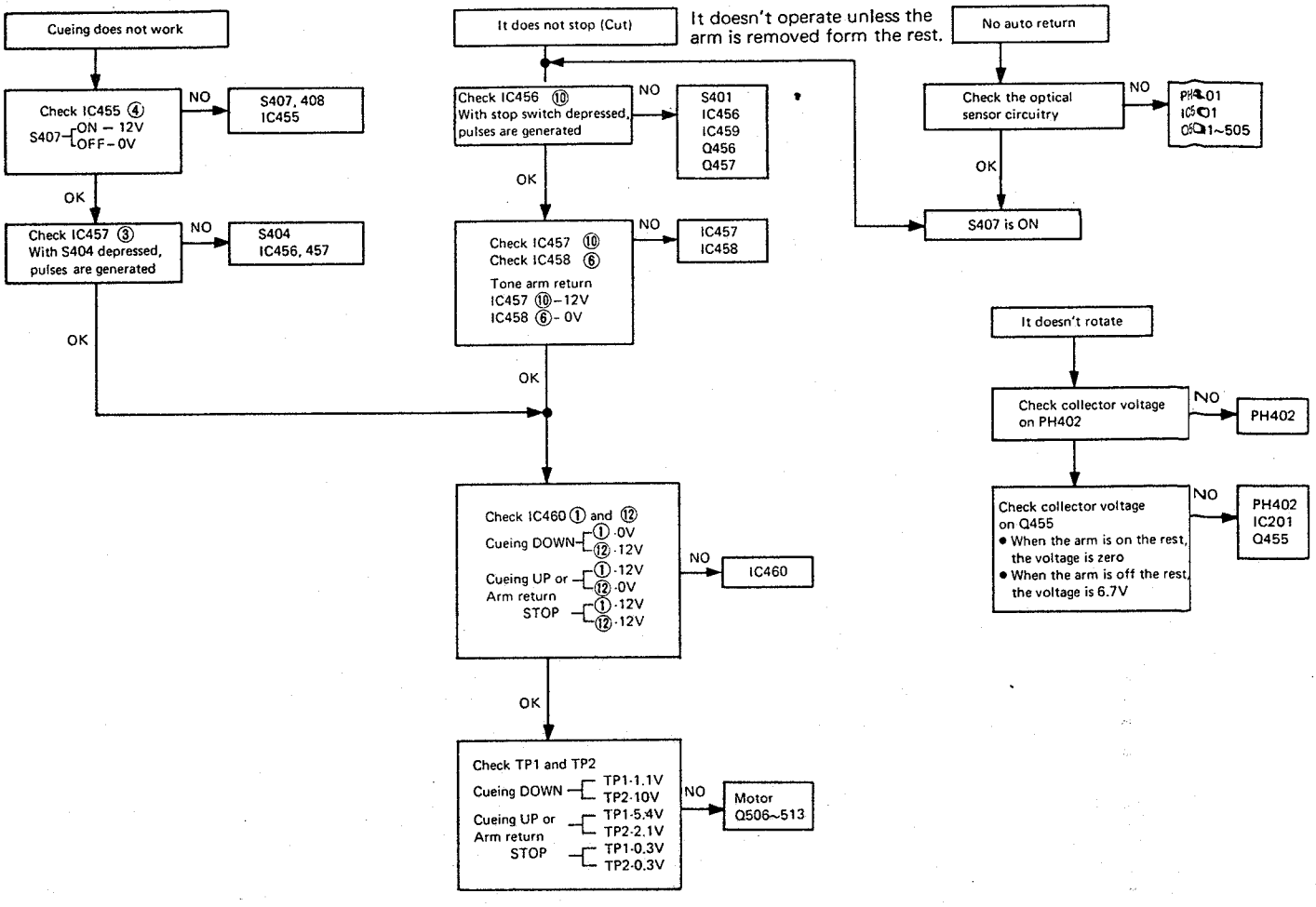


b) Truth table

S	R	Qu+1
L	L	H
L	H	H
H	L	L
H	H	Qu



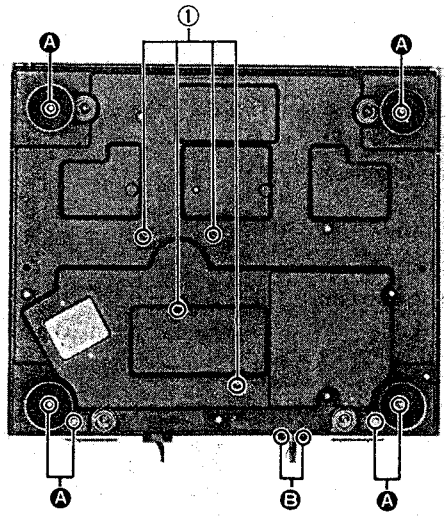
■ TROUBLE SHOOTING OF ARM DRIVE CIRCUIT



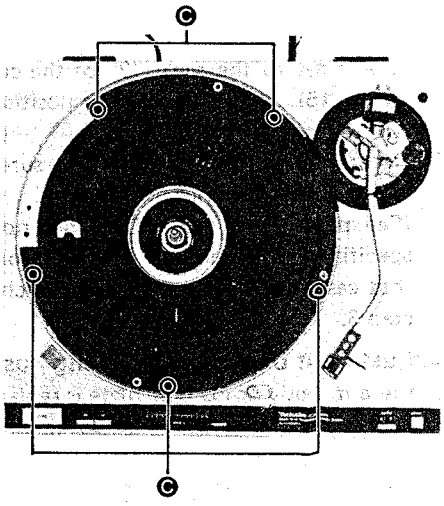
■ DISASSEMBLY PROCEDURE

How to remove main base ass'y and bottom base ass'y

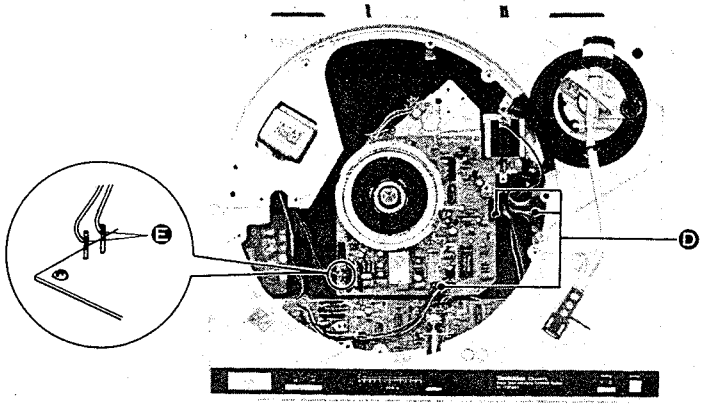
1. Clamp tone arm to the arm rest.
2. Remove head shell and turntable platter.
3. Close dust cover.
4. Turn unit upside down taking special care not to damage or scrach the dust cover.
5. Remove 6 screws Ⓐ of the audio insulator and 2 screws Ⓑ of the phono cord clamper as shown in Photo 1.
6. Holding the player firmly with both hands, to prevent separation of upper section (bottom base ass'y) from lower section (main base ass'y), turn it carefully upwards.
7. Remove dust cover.
8. Remove 5 screws Ⓒ of the panel cover as shown in Photo 2.
9. Remove 3 connectors Ⓓ and 2 read wires Ⓔ from power transformer as shown in Photo 3.
10. To remove the main base ass'y from the bottom base ass'y, turn cueing lever upward and move tone arm towards center of spindle. The main base ass'y can be lifted up essily. (See Photo 4).



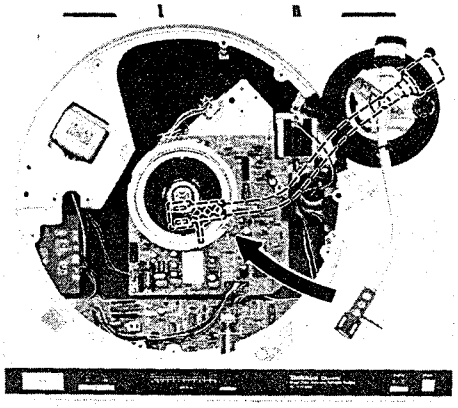
[Photo 1]



[Pnoto 2]



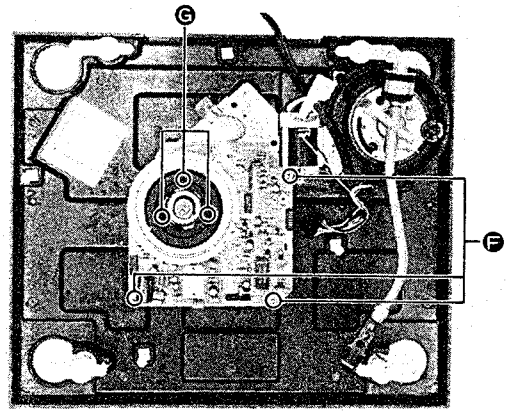
[Photo 3]



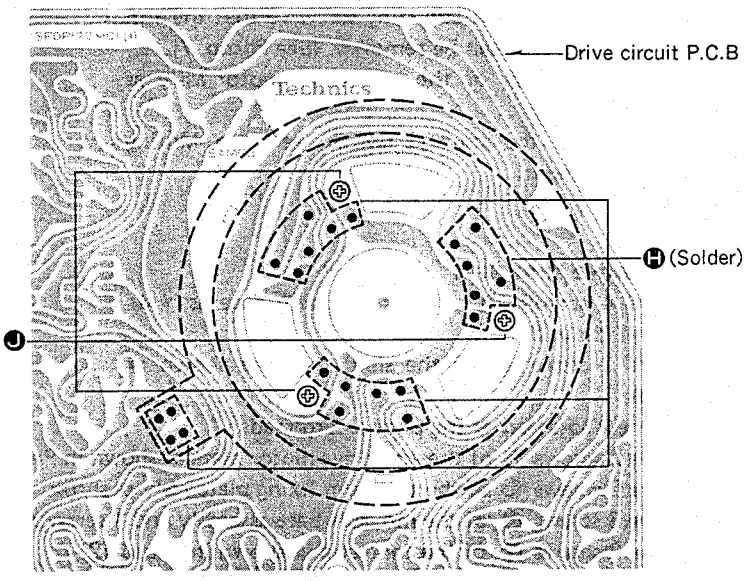
[Photo 4]

How to remove drive circuit p.c.b. and stater frame coil

1. Remove main base ass'y and bottom base ass'y.
2. Remove 3 screws Ⓕ of the drive circuit p.c.b. and 3 screws Ⓖ of the stater frame cover as shown in Photo 5.
3. Disconnect 18 soldered parts Ⓗ of the stater frame coil and 4 soldered parts Ⓗ of the F.G detector coil as shown in Fig. 2.
4. Remove 3 screws Ⓙ of the stater frame ass'y as shown in Fig. 2.



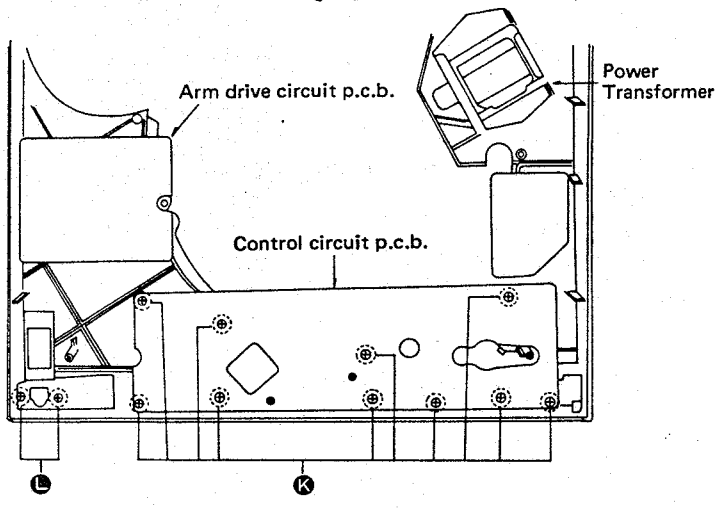
[Photo 5]



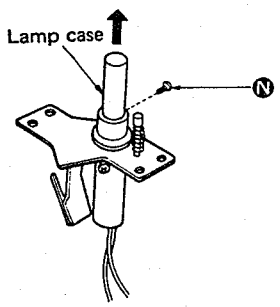
[Fig. 2]

How to remove control circuit p.c.b. and stylus-illuminator lamp

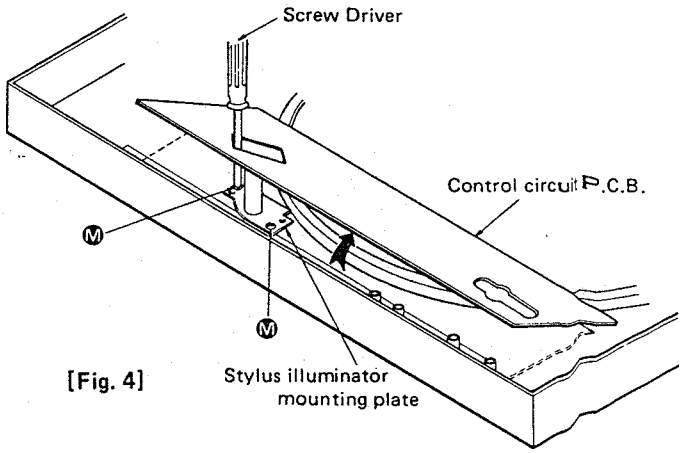
1. Remove main base ass'y and bottom base ass'y.
2. Remove 10 screws Ⓚ of the control circuit p.c.b. as shown in Fig. 3.
3. Remove 2 screws Ⓛ of the power switch bracket as shown in Fig. 3.
4. Set up the control circuit board as shown in Fig. 4. Then remove the 2 screws Ⓜ of the stylus illuminator mounting plate. (Fig. 4).
5. To replace the stylus illuminating lamp, remove the setscrew of the lamp case (Fig. 5) and detach the lamp case, then the stylus illuminating lamp can be replaced.



[Fig. 3]



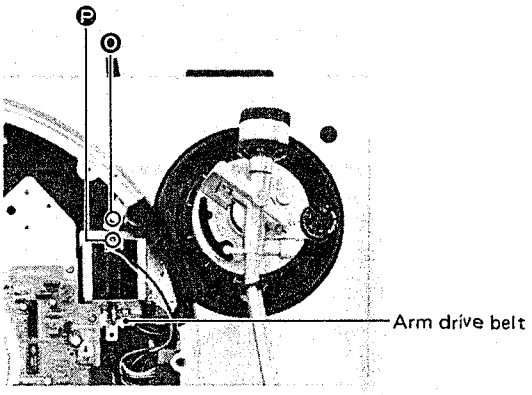
[Fig. 5]



[Fig. 4]

How to remove arm drive motor

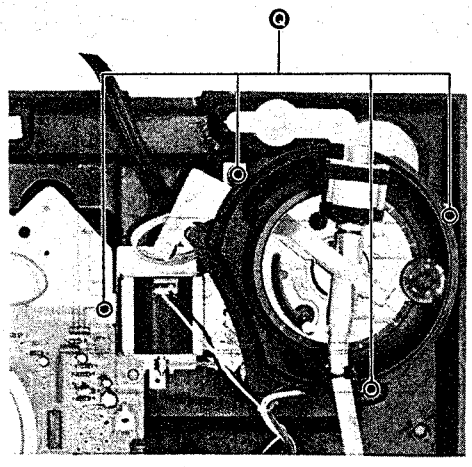
1. Remove head shell and turntable platter.
2. Clamp tone arm to the arm rest.
3. Remove 5 screws C of the panel cover as shown in Photo 2.
4. Remove arm drive belt.
5. Turn the muting switch adjusting screw so that the arm drive motor setscrew can be removed. (See Photo. 7).
6. Remove 1 screw P of the arm drive motor ass'y as shown in Photo 7.
7. When adjusting the muting switch, refer to Muting Switch Adjustment.



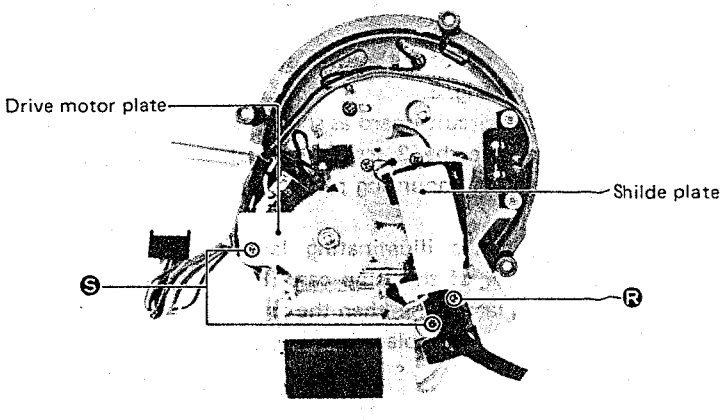
[Photo 7]

How to remove tone arm

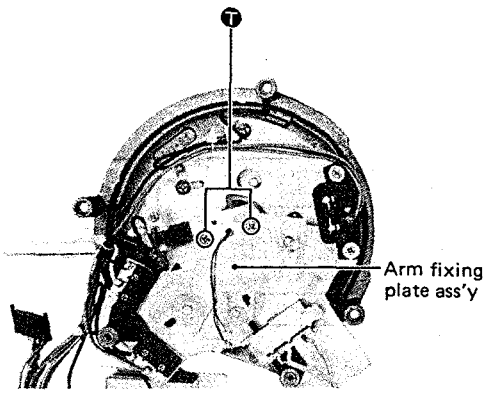
1. Remove 4 screws Q of the tone arm base ass'y as shown in Photo 8.
2. Remove 1 screw R of the shilde plate as shown in Photo 9.
3. Disconnect soldered of the phono cord reads.
4. Remove 2 screws S of the arm drive motor plate as shown in Photo 9.
5. Remove 2 screws T of the tone arm fixing plate ass'y as shown in Photo 10.
6. Remove 3 screws U of the movable base assembly and 1 screw V of the ground wire as shown in Photo 11.
7. Remove 2 screws W of the tone arm as shown in Photo 12.
8. To remove the pick-up base plate, remove the arm lift height adjusting screw and the arm lift.
9. Remove 1 screws X and 1 circlip Y of the position fix plate as shown in Photo 12.
10. Remove 2 screws Z of the pick-up base plate as shown in Photo 12.



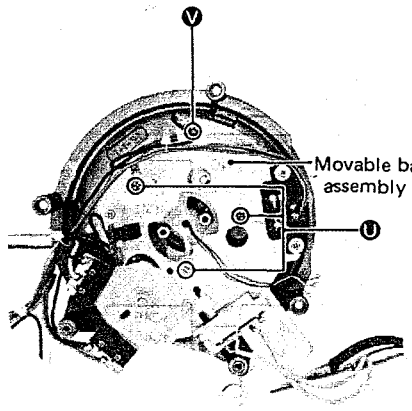
[Photo 8]



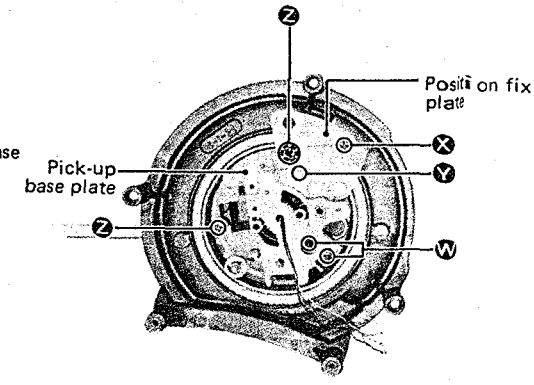
[Photo 9]



[Photo 10]



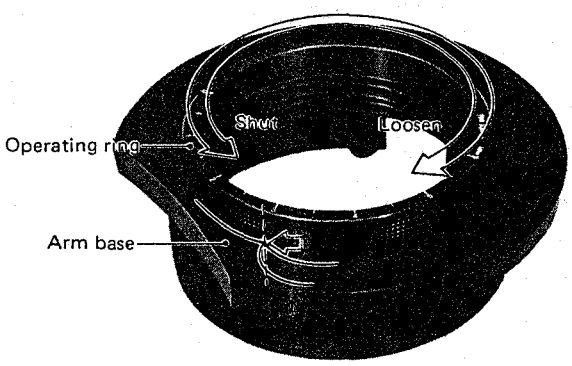
[Photo 11]



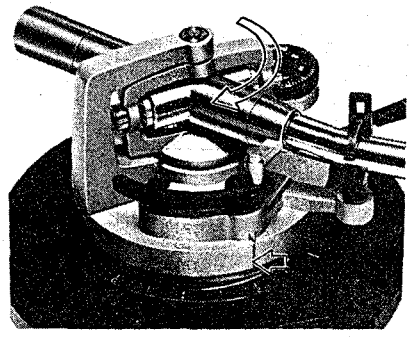
[Photo 12]

Arm Base Assembling Procedure

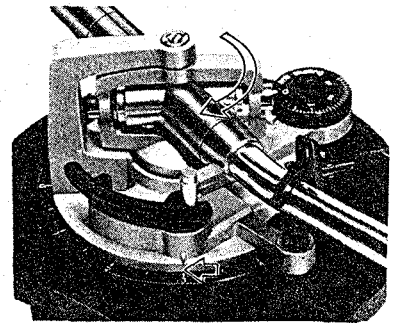
1. Attach the control ring to the arm base seat.
   (The control ring should be rotated counterclockwise.)
2. Completely tighten the control ring, and then loosen it 1.5 ~ 2.5 turns to set the scale to "3". (See photo 13.)
3. Hold the arm base and set the red line mark on the arm base to the scale near "2", then turn the arm base clockwise. (See photo 14.)
   Note) Take care not to allow deflection of the predetermined positions of the control ring and arm base seat.



[Photo 13]

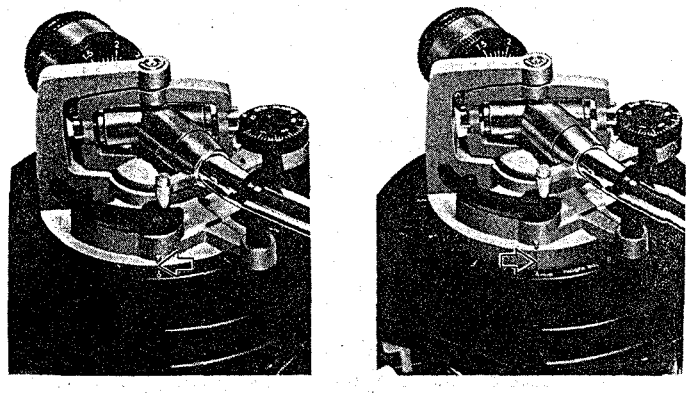


[Photo 14]



[Photo 15]

4. Adjust the arm base so that the red line mark on the arm base is set to the scale "3" of the control ring. (See photo 15). Next, secure the position fix plate with two setscrews. (See photo 12.)
5. Rotate the control ring and make sure that the arm base shifts within the range of 0 ~ 6mm.
   (See photo 16 A, B.) If it does not shift within the specified range, the arm base position is deflected. In that case, disassemble the parts and check as specified in step 3.

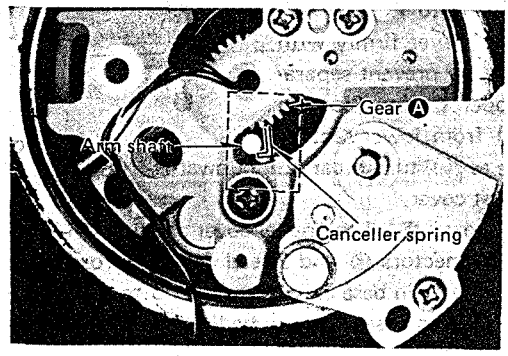


(A) [Photo 16] (B)

Adjustment of Canceller Spring Position

If the arm body or PU base plate is replaced, be sure to set the canceller knob to "0.5" and make sure that the canceller spring is in contact with the arm shaft. (See photo 17.)
If the canceller spring is deflected, adjust it as follows:

1. Clamp the arm on the rest.
2. Set the canceller knob to "0.5".
3. Remove the PU base plate, adjust gear A so that the canceller spring is in the position of photo 17.
4. Mount the PU base plate onto the arm base and check the spring position.

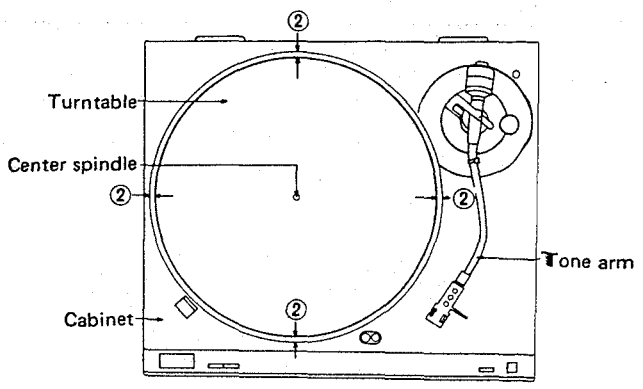


[Photo 17]

How to install the drive circuit board assembly

The circuit board assembly can be detached by removing the 4 setscrews ① shown in Photo. 1. When installing it onto the bottom base assembly after adjustment and repair, follow the procedure mentioned below.

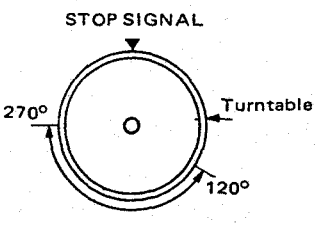
1. Temporarily tighten the 4 setscrews ①. (Refer to Photo 1.)
2. Adjust so that the center spindle is aligned to the center of the turntable provided with equal clearances ② as in Fig. 11.
3. Completely tighten the 4 setscrews ①, taking care not to allow deflection of the center spindle.

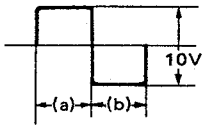
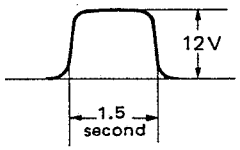


[Fig. 6]

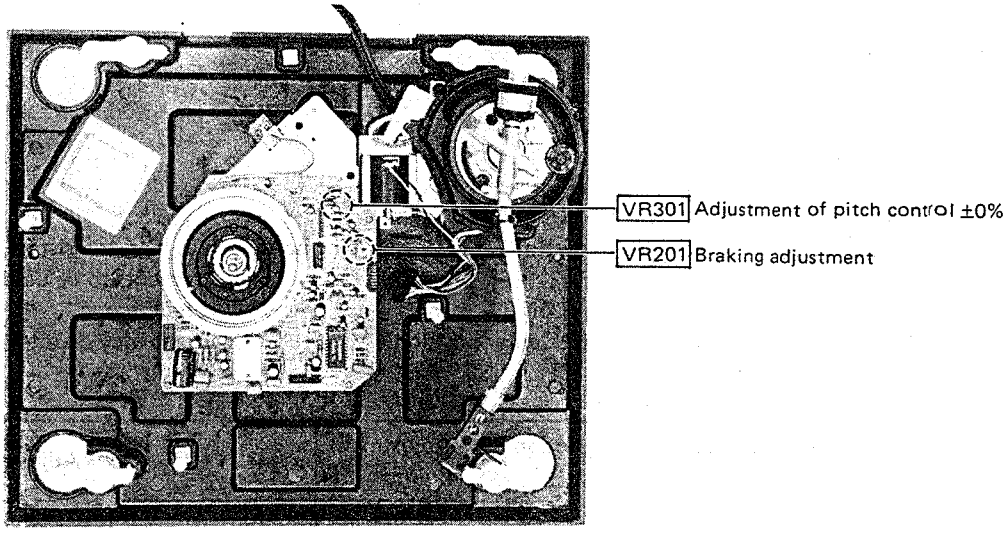
■ ADJUSTMENTS (Electrical)

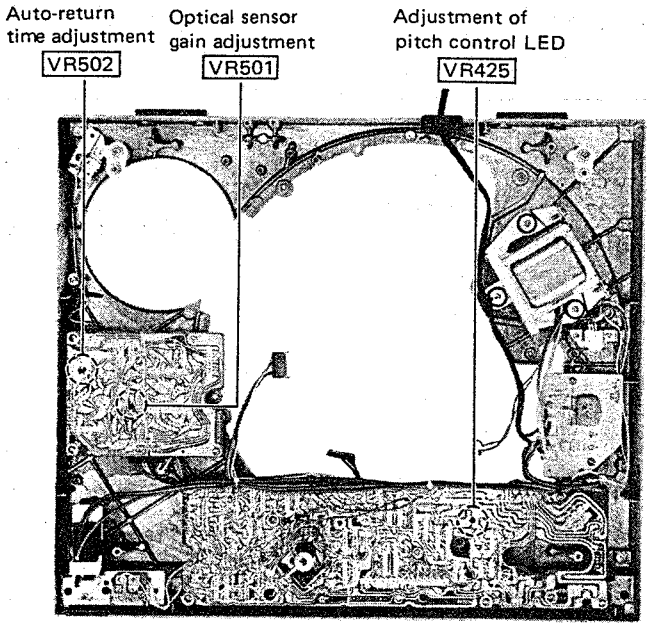
Notes:
- Make the following adjustments after replacing parts such as IC's, transistors, diodes, etc.
- Condition of the set
  1. Power switch . . . . .ON
  2. Pitch control . . . . .Center position
  3. Speed selector switch . . . .33 r.p.m.
- Instruments to be used
  1. Oscilloscope
  2. Frequency counter

	Adjustment	connection Points	Adjustment Points	Adjustment Method
A	Adjustment of pitch control ±0% (PITCH)	Frequency counter + → TP27 − → GROUND	**VR301**	1. Pitch control switch to center position. 2. Adjust VR301 for 262.08 kHz ±0.05 kHz of frequency.
B	Adjustment of pitch control LED (GAIN)	Frequency counter + → TP27 − → GROUND	**VR425**	1. Adjust pitch control switch for 269.94 kHz of frequency. 2. Adjust VR425 so that the LED (pitch indicator plus 3%) lights up.
C	Braking adjustment (BRAKE)	——	**VR201**	 Adjust VR201 for complete stop within 120°~270° after stop signal initiated. (turntable becomes free a few seconds after stop.)

D	Optical sensor gain adjustment (GAIN)	Oscilloscope + → TP32 − → GROUND	VR501	**TP32 waveform** 	With arm near center spindle, manually move with uniform motion, and adjust VR501 as that the (a) and (b) pitch of the waveform of TP32 is equal.
E	Auto-Return time adjustment (TIME)	Oscilloscope + → TP38 − → GROUND	VR502	**TP38 waveform**  Power Switch ON	Turn power switch on, and adjust VR502 so that the time (To) from power on until the voltage of TP38 inverts is 1.5 second at 33 r.p.m. (1.1 second at 45 r.p.m.)

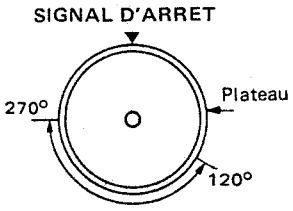
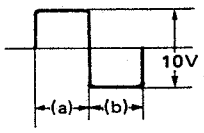
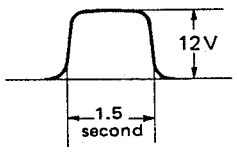
■ ADJUSTMENT POINTS





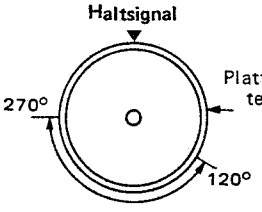
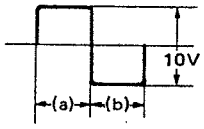
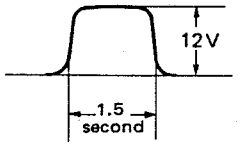
■ REGLAGES (Electricité)

Notes:
- Effectuer les réglages suivants après avoir remplacé des éléments tels que les C.I., transistors, diodes, et autres.
- Etat de l'appareil
  1. Commutateur d'alimentation ..... Marche
  2. Commande d'alignement de la vitesse .... Position centrale
  3. Commutateur de sélecteur de vitesse ..... 33-1/3 trs/mn
- Appareils à utiliser
  1. Oscilloscope
  2. Fréquencemètre

	Réglage	Points de connexion	Points de réglage	Méthode de réglage
A	Réglage de la commande d'alignement de la vitesse, ±0% (PITCH)	Fréquencemétre + ⟶ TR27 − ⟶ TEREE	VR301	1. Commutateur de commande d'alignement de la vitesse len position centrale. 2. Régler la VR301 sur une fréquence de 262,08 kHz ±0,05 kHz.
B	Réglage la LED de la commande d'alignement de la vitesse (GAIN)	Fréquencemétre + ⟶ TP27 − ⟶ TEREE	VR425	1. Régler la commuteur de commande d'alignement de la vitesse sur la fréquence de 269,94 kHz. 2. Régler la VR425 de telle sorte que LED (plus 3% du témoin d'alignement de la vitesse) s'allume.
C	Réglage du fein (BRAKE)	———	VR201	 Régler la VR201 sur l'arrêt complet entre 120° et 270° après la début de l'envoi du signal d'arrêt. (Le plateau devient libre quelques secondes après l'arrêt.)
D	Réglage du Senseur optique (GAIN)	Oscilloscope + ⟶ TP32 − ⟶ TEREE	VR501	**Forme d'onde du TP32**  Quand le bras est proche du mandrin central, le déplacer à la main dans un mouvement uniforme et régler la VR501 de telle sorte que les longueurs (a) et (b) de la forme d'onde du TP32, soient égales.
E	Réglage du temps de retour automatique (TIME)	Oscilloscope + ⟶ TP38 − ⟶ TEREE	VR502	**Forme d'onde du TP38**  Commutateur d'alimentation allumé Allumer la commutateur d'alimentation et régler la VR502 de telle sorte que la temps (To) écoulé entre l'allumage de l'alimentation et l'inversion de la tension du TP38, soit d'une seconde et demie à 33 tours. (1,1 seconde à 45 tours)

■ ABGLEICHUNG (Elektrisch)

Anmerkung:
- Nach Teilerneuerung von z.B. IC, Transistor, Diode usw, die folgenden Abgleichungen vornehmen.
- Einstellung des Gerätes
  1. Netzschalter ..... ON
  2. Tonhöhekontrolle ..... Mittlers Stellung
  3. Drehzahlwähler ..... 33 U/min.
- Zu verwendende Instrumente
  1. Oszilloskop
  2. Signalfrequenzmesser

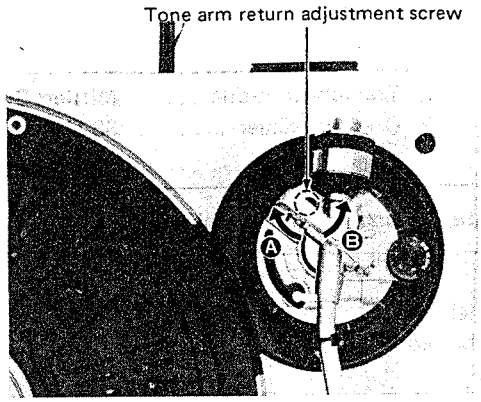
	Abgleichung	Anschlußpunkte	Abgleichspunkte	Abgleichmethode
A	Abgleich der Tonhöhkontrolle ±0% (PITCH)	Signalfrequenzmesser + ⟶ TP27 − ⟶ GROUND	VR301	1. Schalter für Tonhöhekontrolle auf Mittelstellung. 2. VR301 auf 262.08 kHz ±0,05 kHz abgleichen.
B	Abgleich der Tonhöhkontrolle LED (GAIN)	Signalfrequenzmesser + ⟶ TP27 − ⟶ GROUND	VR425	1. Schalter für Tonhöhkontrolle auf 269,94 kHz abgleichen. 2. VR425 so abgleichen, daß LED (Tonhöheanzeige plus 3%) auf leuchtet.
C	Bremsenjustierung (BRAKE)	———	VR201	 VR201 innerhalb 120 - 270° nach Haltsignalanzeige auf kompletten Halt justieren. (Plattenteller wird ein paar Sekunden nach Halt frei.)
D	Abgleich des optischen Sensorgewinns (GAIN)	Oszilloskop + ⟶ TP32 − ⟶ GROUND	VR501	TP32 Wellenform  Den Arm in die Nähe der Mittelspindel legen, manuell mit gleichmäßiger Bewegung schieben und VR501 so abgleichen, daß die (a) und (b) Tonhöhe der Wellenform TP32 gleich sind.
E	Zeitabgleich der Auto-Rückstellung (TIME)	Oszilloskop + ⟶ TP38 − ⟶ GROUND	VR502	TP38 Wellenform  Netzschalter einschalten und VR502 so abgleichen, daß die Zeit (To) von Einschalten bis zur Umkehrung der Spannung von TP38 bei 33 U/min. 1,5 Sekunden beträgt.

■ ADJUSTMENTS (Tone arm)

• Adjustment for automatic return position

1. Keep the power switch turned OFF to prevent the turntable from rotation.
2. Remove the rubber cap.
3. Move the tone arm toward the center spindle side, and make the adjustment by gradually turning the adjusting screw.

In case where the tone arm tends to return before the playing has finished.
–Move counterclockwise. (See Photo 18 Ⓐ)
In cases where the tone arm fails to return after the last groove of the record.
–Move clockwise. (See Photo 18 Ⓑ)

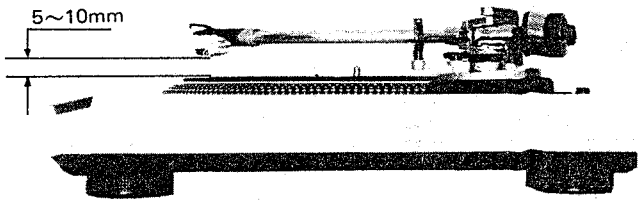


[Phot 18]

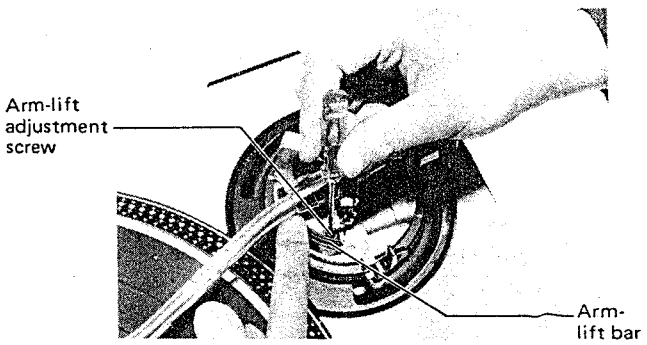
Adjustment of arm-lift height (See Photos 19 and 20.)

The arm-lift height (distance between the stylus tip and record surface when cueing lever is at the up position) has been adjusted at the factory before shipment to approximately 5 to 10 mm.
For using different cartridges available on the market or when further adjustments are particularly necessary, make adjustment as follows:

1. Move the tone arm toward the center spindle.
   Attach the stylus protector, if avialble, to guard the stylus tip from damage.
2. Turn the adjustment screw clockwise or counterclockwise, while pushing the arm lift down.
   Clockwise rotation
   –distance between the record and stylus tip is reduced.
   Counterclockwise rotation
   –distance between the record and stylus tip is increased.
   Note:
   As the adjusting screw has a hexagonal head, be sure to make the adjustment while depressing the arm lift, or the screw will not move freely.
   Also be sure that the hexagonal head retracts correctly into the arm lift when the latter is released.



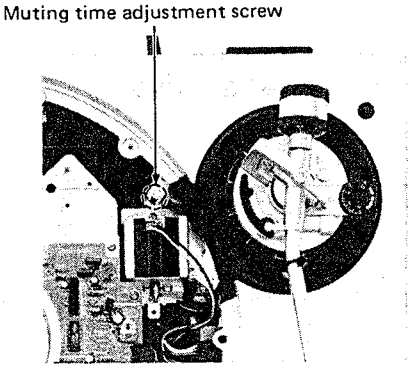
[Photo 19]



[Photo 20]

• Muting adjustment

This unit employs a muting switch to eliminate noise created when the stylus is placed on or moved off the record disk. If the sound is not heard immediately or noise is created when the stylus is shifted down onto the disk, adjust it by turning the muting adjust screw. (Photo 21).



[Photo 21]

■ REGLAGES (Bras acoustique)

• Réglage de la position de retour automatique

1. Conserver le commutateur d'alimentation coupé pour éviter que la platine ne tourne.
2. Enlever le tapis de caoutchouc.
3. Porter le bras acoustique vers le côté du mandrin central et effectuer le réglage en tournant progressivement la vis de réglage.
   Si le bras acoustique tend à revenir avant la fin de la lecture du disque:
   — Déplacer à gauche (voir la photographie 18 Ⓐ)
   Si le bras acoustique ne revient pas après le dernier sillon du disque:
   — Déplacer à droite (voir la photographie 18 Ⓑ)

Réglage du poids du léve-bras (Voir photographies 19 et 20)

Le poids du lève-bras (distance entre la pointe de l'aiguille et la surface du disque lorsque le levier de mise en pile est dans la position levée) a été réglé en usine avant l'expédition, à environ 5 à 10mm.
Lors de l'utilisation de cellules différentes disponibles sur le marché ou quand des réglages ultérieurs sont particulièrement nécessaires, effectuer les réglages de la façon suivante:

1. Porter le bras acoustique vers le mandrin central.
   Monter le protecteur de l'aiguille, si fourni, pour protéger l'aiguille contre tout endommagement éventuel.
2. Tourner à droite ou à gauche la vis de réglage tout en poussant le lève-bras vers le bas.
   Rotation à droite
   — La distance entre le disque et la pointe de l'aiguille, est réduite.
   Rotation à gauche
   — La distance entre le disque et la pointe de l'aiguille, est augmentée.
   Note:
   Comme la vis de réglage présente une tête hexagonale, s'assurer d'effectuer le réglage tout en enfonçant la lève-bras, sinon la vis ne se déplacera pas normalement. De plus, s'assurer que la tête hexagonale se rétracte correctement dans le lève-bras quand ce dernier est libéré.

• Réglage de la suppression de sensibilité

Cet appareil présente un commutateur de suppression de sensibilité qui élimine les parasites provoqués quand l'aiguille est posée sur le disque ou quand elle en est retirée. Si le son n'est pas immédiatement entendu ou si un parasite est entendu quand l'aiguille est posée sur le disque, régler des phénomènes à l'aide de la vis de réglage de la suppression de sensibilité (Photographie 21).

■ JUSTIERUNG (Tonarm)

• Justierung für automatische Rückstellung

1. Netzschalter auf OFF halten, um Drehen des Plattentellers zu verhüten.
2. Die Gummidecke abnehmen.
3. Den Tonarm gegen die Mittelspindel bewegen, und unter langsamer Drehung der Justierschraube regulieren.

Wenn der Tonarm geneigt ist, sich schon vor Spielablauf zurückzustellen:
— Die Schraube im Gegensinn zum Uhreiger drehen. (Vgl. Foto 18 Ⓐ)
Wenn sich der Tonarm nach der letzten Führungsrille nicht zurückstellt:
— Die Schraube im Uhrzeigersinn drehen. (Vgl. Foto 18 Ⓑ)

Justierung der Armhubhöhe (Siehe Foto 19 und 20)

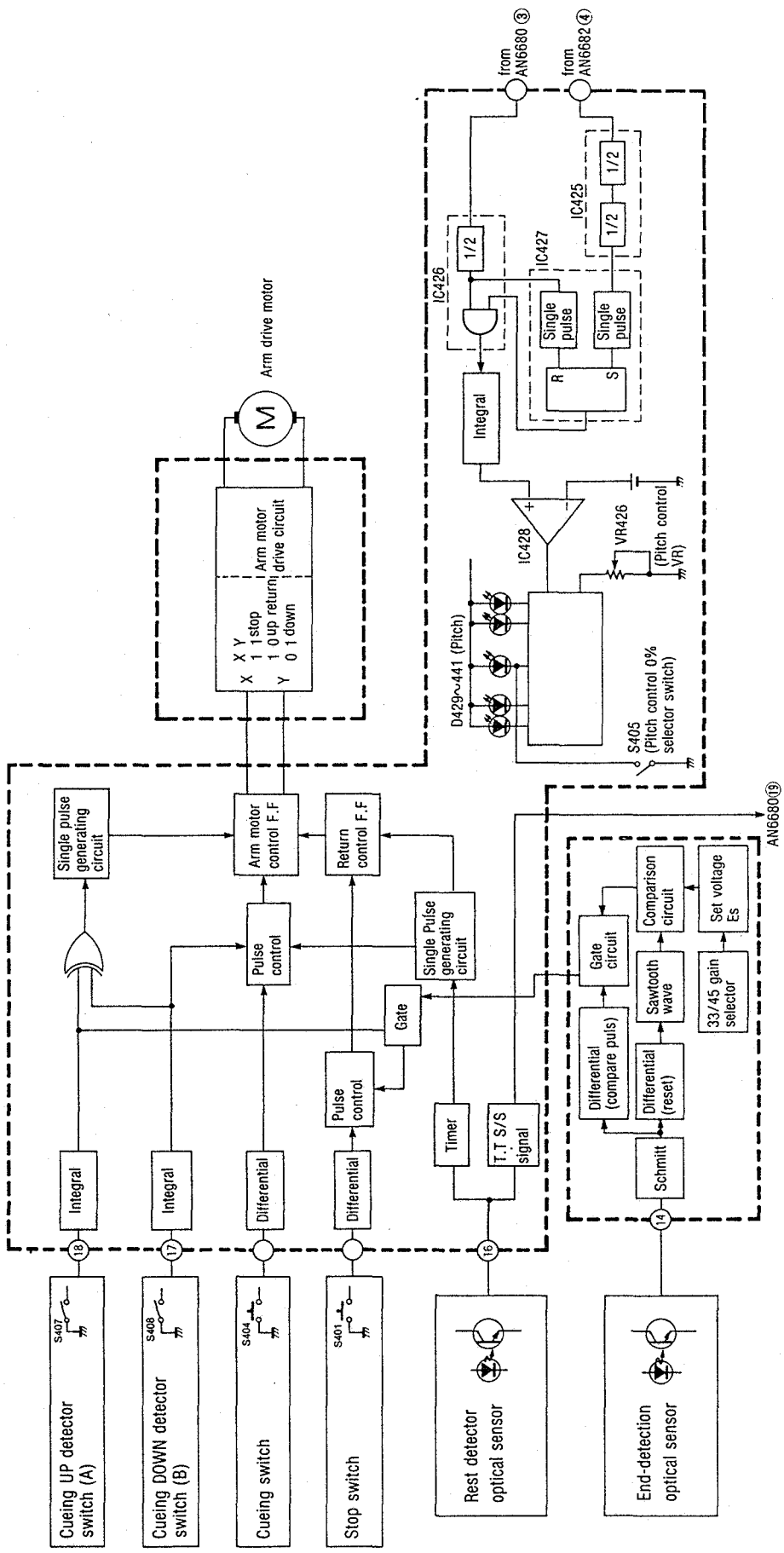
Die Armhubhöhe (Abstand zwischen Nadelspitze und Plattenoberfläche, wenn sich Einsatzhebel an der Oberstellung befindet) ist bereits vor Verschiffung im Werk auf ca. 5 — 10 mm eingestellt.
Zum Gebrauch verschiedener handelsüblicher Tonabnehmer, oder wenn weitere Justierungen praktisch notwendig sind, Justierung folgendermaßen durchführen:

1. Den Tonarm gegen die Mittelspindel bewegen.
   Wenn erhältlich den Nadelschoner anbringen, um die Nadelspitze vor Beschädigung zu schützen.
2. Unter Niederdrücken des Armhubhebels die Justierschraube rechts oder links drehen.
   Rechtsdrehung
   — Abstand zwischen Schallplatte und Nadelspitze nimmt ab.
   Linksdrehung
   — Abstand zwischen Schallplatte und Nadelspitze nimmt zu.
   Anmerkung:
   Da die Justierschraube einen Sechskantkopf aufweist, bei Justierung unbedingt den Armhubhebel niederdrücken, sonst bewegt sich die Schraube nicht frei.
   Feststellen, daß der Sechskantkopf richtig in den Armhubhebel einzieht, wenn der letztere gelöst wird.

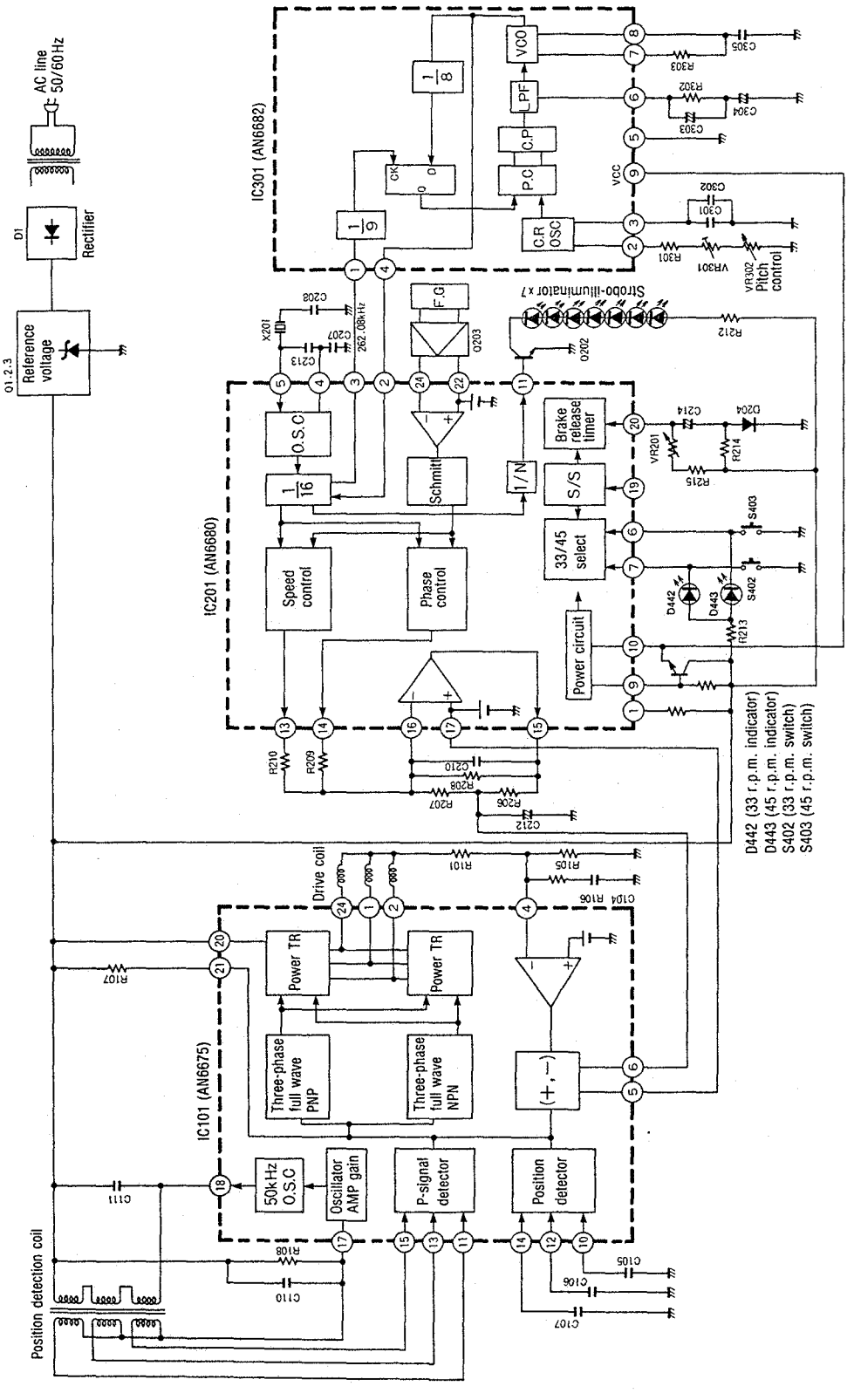
• Stummabstimmung

In dem Gerät ist ein Schalter für Stummabstimmung eingesetzt, um Geräusch zu beseitigen, das beim Auflegen der Nadel auf die Platte oder beim Wegnehmen davon entsteht. Wenn der Schall nicht direkt zu hören ist oder beim Herabsetzen der Nadel auf die Platte Geräusch entsteht, unter Drehen der Stummabstimmungsschraube justieren. (Foto 21)

■ BLOCK DIAGRAM (Control Circuit, Arm Control Circuit and Pitch Control Circuit)



■ BLOCK DIAGRAM (Drive Circuit)



REPLACEMENT PARTS LIST (Electric Parts)

Notes: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.

Ref. No.		Part No.	Part Name & Description
INTEGRATED CIRCUITS			
IC1		SVIμPC14312	Integrated Circuit, Reference Voltage
IC101		AN6675	Integrated Circuit, Drive
IC201		AN6680	Integrated Circuit, Control
IC301		AN6682	Integrated Circuit
IC302, 427, 455 456, 457, 459		SVITC4011BP	Integrated Circuit, CMOS
IC425, 426, 460		SVITC4013BP	Integrated Circuit, CMOS
IC428		AN6552	Integrated Circuit
IC429		SVIMS1901P	Integrated Circuit
IC458		SVITC4023BP	Integrated Circuit
IC501		SVIMSM4011M	Integrated Circuit, CMOS
TRANSISTORS			
Q1		2SD389A-Q	Transistor
Q2, 3, 202		2SD637	Transistor
Q201		2SC1846-R	Transistor
Q203		2SC1328-T	Transistor
Q425, 426, 428, 429, 455, 456, 457, 501, 502, 503, 504, 508, 509, 512, 513		2SD636	Transistor
Q427		2SC1047-T	Transistor
Q430, 505		2SB641	Transistor
Q506, 510		2SD638	Transistor
Q507, 511		2SB643	Transistor
DIODES			
D1, 3	⚠	**SVDS1RBA40**	Rectifier
D2, 301		**MA1051**	Diode, 5V Zener
D204, 425, 427, 428, 451, 457, 458, 459, 501, 502, 503, 504, 505		**MA162A**	Diode
D426		MA26TO-A	Diode
D429~434, 442 436~441, 443		SVDGL-9PR2	Light Emitting Diode, Pitch Control, Speed Selector
D435		SVDGL-9NG2	Light Emitting Diode, Pitch Control
D455, 456		**2-OA90**	Diode
D444, 445, 446, 447, 448, 449, 450		SVDGD4205ALC	Light Emitting Diode
CRYSTAL			
X201		SVQU306115	Crystal, 4.19328MHz Oscillator
TRANSFORMER			
P.T.	⚠	SLTF5899	Transformer, Power Source
LAMP			
PL1		SFDN172-01	Lamp. Stylus Illuminator
FUSE			
F1	⚠	XBAS2C025TIA	Fuse, T250mA (250V)
F2, 3	⚠	XBA2C08TR0	Fuse, T800mA (250V)
VARIABLE RESISTORS			
VR201		EVLS6AA00B54	Braking Adjustment, 50kΩ(B)
VR301		EVMH1GA00B53	Pitch Control ±0% Adjustment, 5kΩ(B)
VR425		EVTS6AA00B52	Pitch Control LED Adjustment, 500Ω(B)
VR426		EVHJXB001A24	Pitch Control and Pitch Control Switch
VR501		EVLS6AA00B24	Optical Sensor Gain Adjustment, 20kΩ(B)
VR502		EVLS6AA00B55	Auto-Return Time Adjustment, 500kΩ(B)
SWITCHES			
S401~404		EVQP5R04K	Switch, Stop, 33 r.p.m. and 45 r.p.m. Selector

Ref. No.		Part No.	Part Name & Description
S406		SFDSD2MSL-4	Switch, Stylus Illuminator
S407, 408		SFDSD2MS-4	Switch, Cueing Down, Cueing Up
S501		ESB6237	Switch, Manual
S601	⚠	SFDSSS5GL2S	Switch, Power
S701		SFDSHSW0665B	Switch, Muting
S602	⚠	SFDSHXW13312	Switch, Power Selector
PHOTO INTERRUPTER			
PH402		ON1128	Photo Interrupter
RESISTORS			
R1		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R2		**ERD25FJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%
R3		**ERD25FJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%
R4		**ERD25FJ561**	Carbon, 560Ω, 1/4W, ± 5%
R5		**ERD25TJ471**	Carbon, 470Ω, 1/4W, ± 5%
R101		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R102		ERX1ANJ4R7	Metal Film, 4.7Ω, 1W, ± 5%
R103		**ERD25FJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%
R104		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R105		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R106		**ERD25FJ150**	Carbon, 15Ω, 1/4W, ± 5%
R107	⚠	ERX1ANJ1R5	Metal Film, 1.5Ω, 1W, ± 5%
R108		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R109, 110		ERX1ANJ4R7	Metal Film, 4.7Ω, 1W, ± 5%
R201	⚠	ERG1ANJ561	Metal Oxide, 560Ω, 1W, ± 5%
R202		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R203		**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R204		**ERD25FJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%
R205		**ERD25TJ124**	Carbon, 120kΩ, 1/4W, ± 5%
R206		**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%
R207		**ERD25TJ563**	Carbon, 56kΩ, 1/4W, ± 5%
R208		**ERD25TJ224**	Carbon, 220kΩ, 1/4W, ± 5%
R209		**ERD25TJ154**	Carbon, 150kΩ, 1/4W, ± 5%
R210		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R211		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R212		**ERD25FJ121**	Carbon, 120Ω, 1/4W, ± 5%
R213		**ERD25FJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%
R214		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R215		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R216		**ERD25TJ154**	Carbon, 150kΩ, 1/4W, ± 5%
R217		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R218		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R219		**ERD25FJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%
R220		**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R221		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R222		**ERD25FJ391**	Carbon, 390Ω, 1/4W, ± 5%
R301		ERO25CKF3301	Metal Film, 3.3kΩ, 1/4W, ± 1%
R302		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R303		**ERD25FJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%
R304		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R306		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R307		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R308, 309		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R425		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R426, 427		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R428		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R429		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R430, 431		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R432		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R433		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R434		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R435		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R436		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R437		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R438		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R439		ERO25CKF1802	Metal Film, 18kΩ, 1/4W, ± 1%
R440		ERO25CKF4303	Metal Film, 430kΩ, 1/4W, ± 1%
R441		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R442		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R443		**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R444		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%

SL-1700MK2(XG) → [XG] SL-1700MK2(XGF) → [XGF] SL-1700MK2(XGB) → [XGB]
SL-1700MK2(E) → [E] SL-1700MK2(XA) → [XA] SL-1700MK2(XGE) → [XGE]
SL-1700MK2A(XA) → [AXA] SL-1700MK2A(XG) → [AXG] SL-1700MK2A(E) → [AE]
SL-1710MK2(XG) → [10XG] SL-1710MK2(E) → [10E] SL-1710MK2A(XG) → [10AXG]
SL-1710MK2A(E) → [10AE]

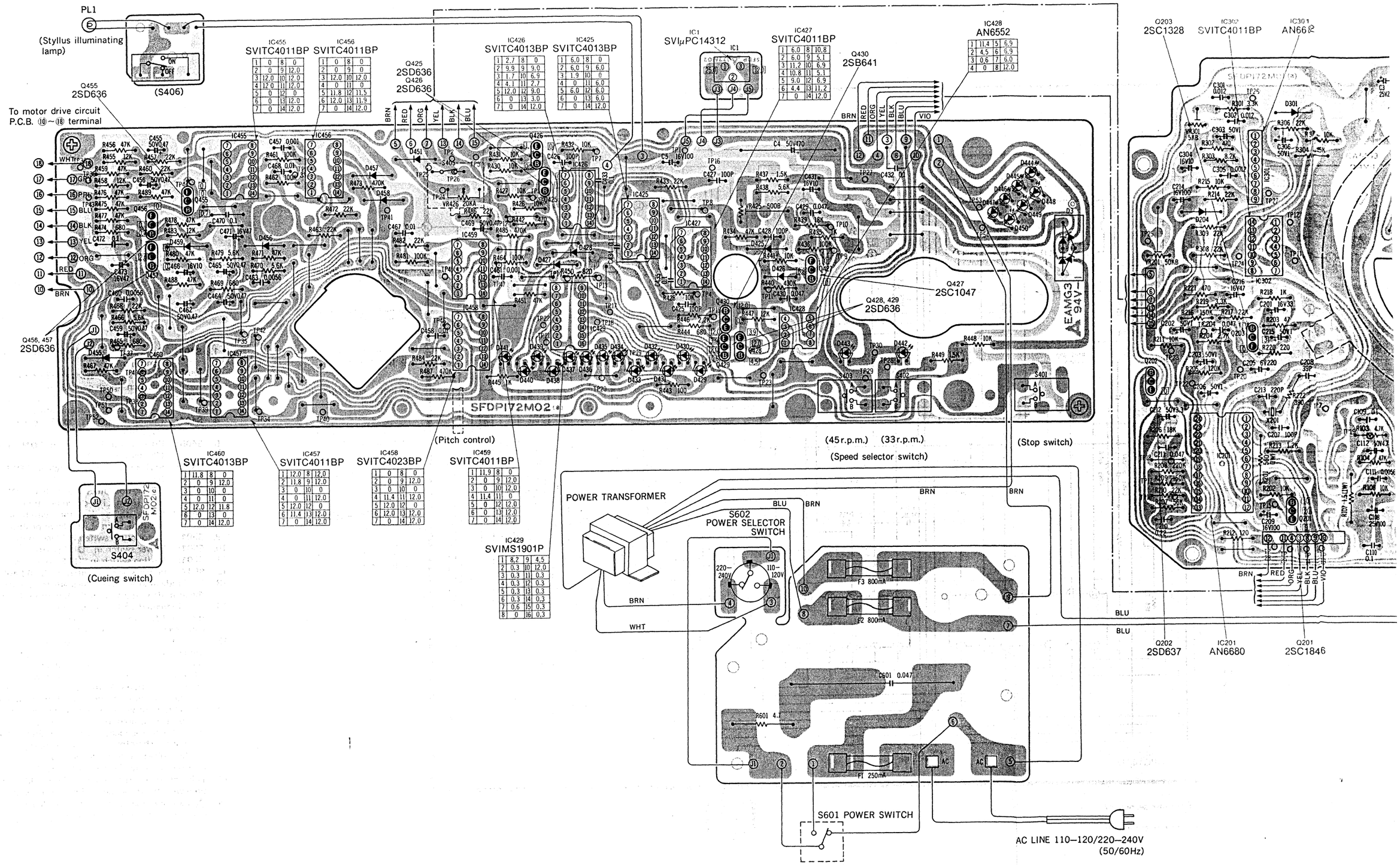
Ref. No.		Part No.	Part Name & Description
R445		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R446		**ERD25FJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%
R447		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R448		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R449		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R450		**ERD25FJ821**	Carbon, 820Ω, 1/4W, ± 5%
R451		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R455		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R456		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R457		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R458		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R459		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R460		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R461, 462		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R463		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R464		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R465		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R466		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R467		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R468		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R469		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R470		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R471		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R472		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R473		**ERD25TJ474**	Carbon, 470kΩ, 1/4W, ± 5%
R474		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R475, 476		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R477, 478		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R479		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R480		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R481		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R482		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R483		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R484		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R485		**ERD25TJ474**	Carbon, 470kΩ, 1/4W, ± 5%
R486		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R487		**ERD25TJ474**	Carbon, 470kΩ, 1/4W, ± 5%
R488, 489		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R501		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R502		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R503		**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%
R504		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R505, 506		**ERD25TJ274**	Carbon, 270kΩ, 1/4W, ± 5%
R507		**ERD25TJ274**	Carbon, 270kΩ, 1/4W, ± 5%
R508		**ERD25TJ393**	Carbon, 39kΩ, 1/4W, ± 5%
R509		**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R510		**ERD25TJ824**	Carbon, 820kΩ, 1/4W, ± 5%
R511		**ERD25TJ333**	Carbon, 33kΩ, 1/4W, ± 5%
R512		**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%
R513		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R514		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R515		**ERD25FJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%
R516		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R517		**ERD25TJ393**	Carbon, 39kΩ, 1/4W, ± 5%
R518		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R519		**ERD25FJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%
R520		**ERD25FJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%
R521		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R522		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R523		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R524		**ERD25FJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%
R525		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R526		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R527		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R528		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R529, 530		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R531		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R601	⚠	**ERD25TJ4R7**	Carbon, 4.7Ω, 1/4W, ± 5%

CAPACITORS

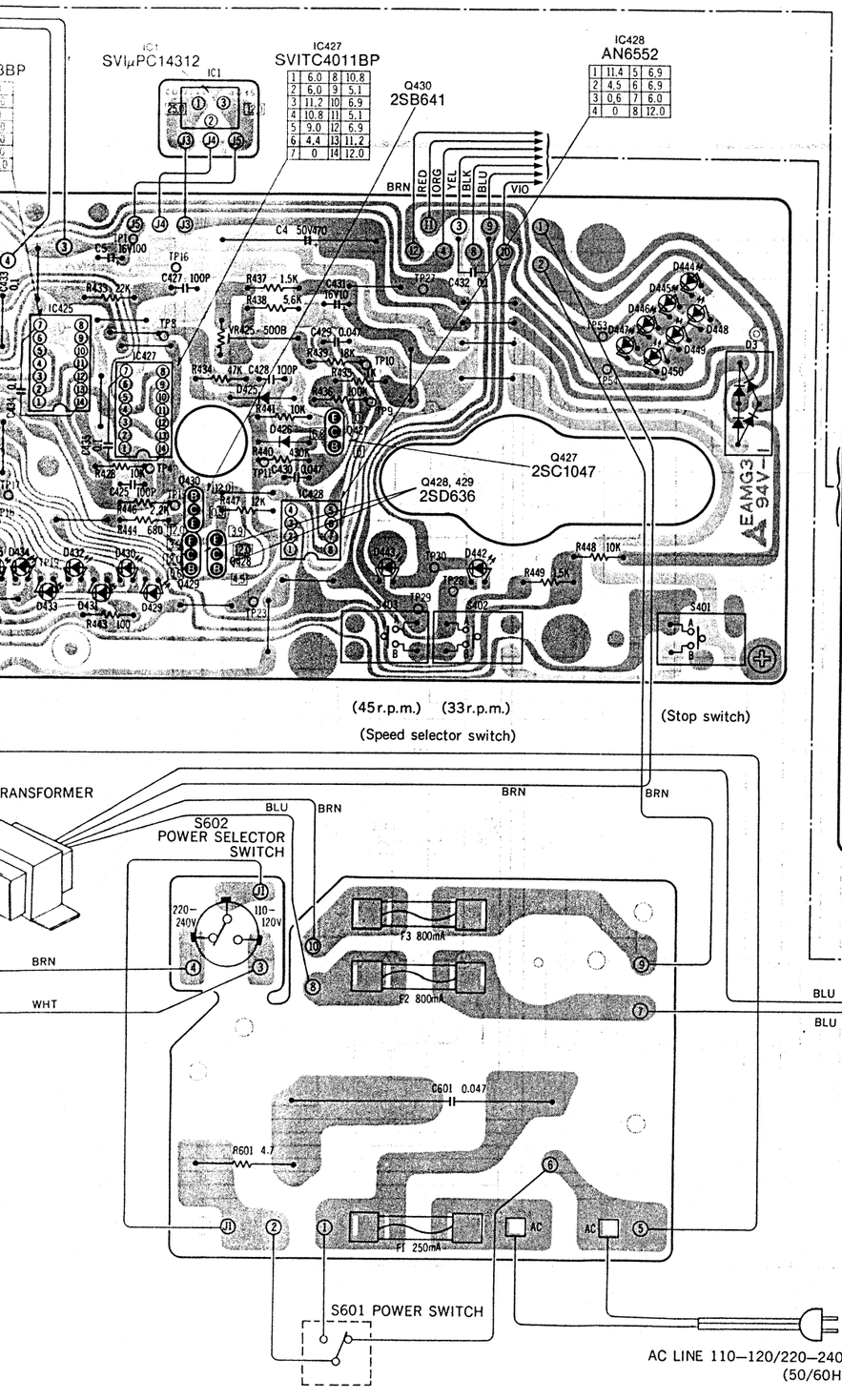
Ref. No.		Part No.	Part Name & Description
C1		**ECEB1HS471**	Electrolytic, 470μF, 50V
C2		**ECEA1VS330**	Electrolytic, 33μF, 35V
C3		**ECEA1ES220**	Electrolytic, 22μF, 25V
C4		**ECEB1HS471**	Electrolytic, 470μF, 50V
C5		**ECEA1ES101**	Electrolytic, 100μF, 25V
C101, 102		**ECEA1VS330**	Electrolytic, 33μF, 35V
C103		**ECEA1VS330**	Electrolytic, 33μF, 35V
C104, 105		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C106, 107		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C108		**ECEA1ES101**	Electrolytic, 100μF, 25V
C109, 110		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C111		ECQM1H562KZ	Polyester, 0.0056μF, 50V, ±10%
C112		**ECEA1JS4R7**	Electrolytic, 4.7μF, 63V
C201		**ECEA1CS330**	Electrolytic, 33μF, 16V
C202, 203		**ECEA50Z1**	Electrolytic, 1μF, 50V
C204		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C205		**ECEA1AS221**	Electrolytic, 220μF, 10V
C206		**ECEA50Z1**	Electrolytic, 1μF, 50V
C207		ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C208		ECCD1H390K	Ceramic, 39pF, 50V, ±10%
C209		**ECEA1ES101**	Electrolytic, 100μF, 25V
C210		ECQM1H224KZ	Polyester, 0.22μF, 50V, ±10%
C211		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C212		**ECEA50Z3R3**	Electrolytic, 3.3μF, 50V
C213		ECCD1H471K	Ceramic, 470pF, 50V, ±10%
C214		**ECEA1ES101**	Electrolytic, 100μF, 25V
C215		**ECEA50Z1**	Electrolytic, 1μF, 50V
C216		**ECEA1ES470**	Electrolytic, 47μF, 25V
C301, 302		ECQK1123FZ	Polyester, 0.012μF 125V, ± 1%
C303		**ECEA50Z1**	Electrolytic, 1μF, 50V
C304		**ECEA1HS100**	Electrolytic, 10μF, 50V,
C305		ECQM1H122KZ	Polyester, 0.0012μF, 50V, ±10%
C306		**ECEA50Z1**	Electrolytic, 1μF, 50V
C425, 426		ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C427, 428		ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C429, 430		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C431		**ECEA1HS100**	Electrolytic, 10μF, 50V
C432, 433		ECKD1E104ZF	Ceramic, 0.1μF, 25V, +80% −20%
C434, 435		ECKD1E104ZF	Ceramic, 0.1μF, 25V, +80% −20%
C455, 456		**ECEA50ZR47**	Electrolytic, 0.47μF, 50V
C457		ECQM1H102KZ	Polyester, 0.001μF, 50V, ±10%
C458		ECQM1H103KZ	Polyester, 0.01μF, 50V, ±10%
C459		**ECEA50ZR47**	Electrolytic, 0.47μF, 50V
C460		ECQM1H562KZ	Polyester, 0.0056μF, 50V, ±10%
C461		ECQM1H102KZ	Polyester, 0.001μF, 50V, ±10%
C462		**ECEA50ZR47**	Electrolytic, 0.47μF, 50V
C463		ECQM1H562KZ	Polyester, 0.0056μF, 50V, ±10%
C464, 465		**ECEA50ZR47**	Electrolytic, 0.47μF, 50V
C466		**ECEA1HS100**	Electrolytic, 10μF, 50V
C467, 468		ECQM1H103KZ	Polyester, 0.01μF, 50V, ±10%
C469		**ECEA50ZR47**	Electrolytic, 0.47μF, 50V
C470		ECKD1E104ZF	Ceramic, 0.1μF, 25V, +80% −20%
C471		**ECEA1ES470**	Electrolytic, 47μF, 25V
C472		ECKD1E104ZF	Ceramic, 0.1μF, 25V, +80% −20%
C473		**ECEA1ES470**	Electrolytic, 47μF, 25V
C501		**ECEA50ZR1**	Electrolytic, 0.1μF, 50V
C502		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C503		ECQM1H184KZ	Polyester, 0.18μF, 50V, ±10%
C504		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C505		**ECEA25Z4R7**	Electrolytic, 4.7μF, 25V
C506		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C507, 508		ECQM1H103KZ	Polyester, 0.01μF, 50V, ±10%
C509		ECKD1E104ZF	Ceramic, 0.1μF, 25V, +80% −20%
C510		**ECEA1ES101**	Electrolytic, 100μF, 25V
C601 [XG, XGF, XGB, AXA, 10XG, AXG, 10AXG, XA]	⚠	ECQE2A473MZ	Polyester, 0.047μF, 250V, ±20%
C601 [E, 10E, AE, 10AE, XGE, 10XGE]	⚠	ECNC4A473M	Paper, 0.047μF, 450V, ±20%

■ CONTROL CIRCUIT BOARD

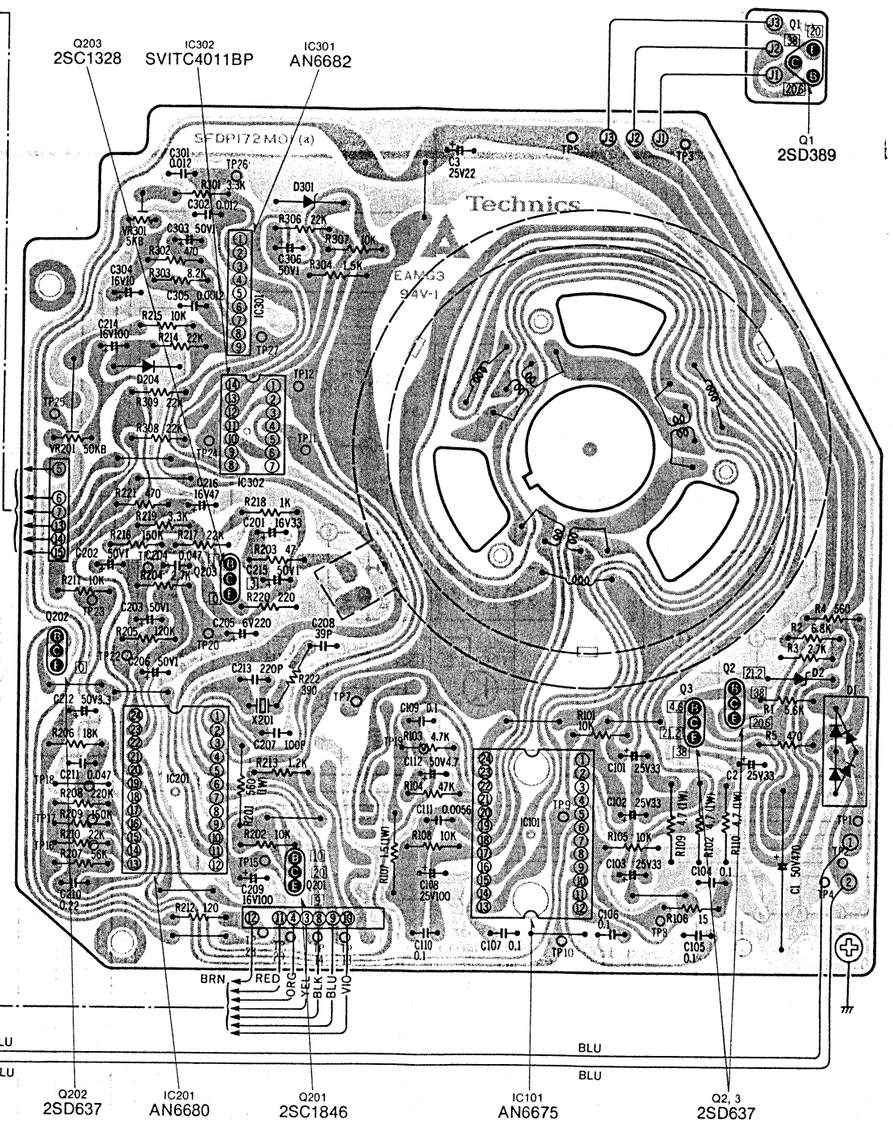
Earth (Ground) Lines



Earth (Ground) Lines



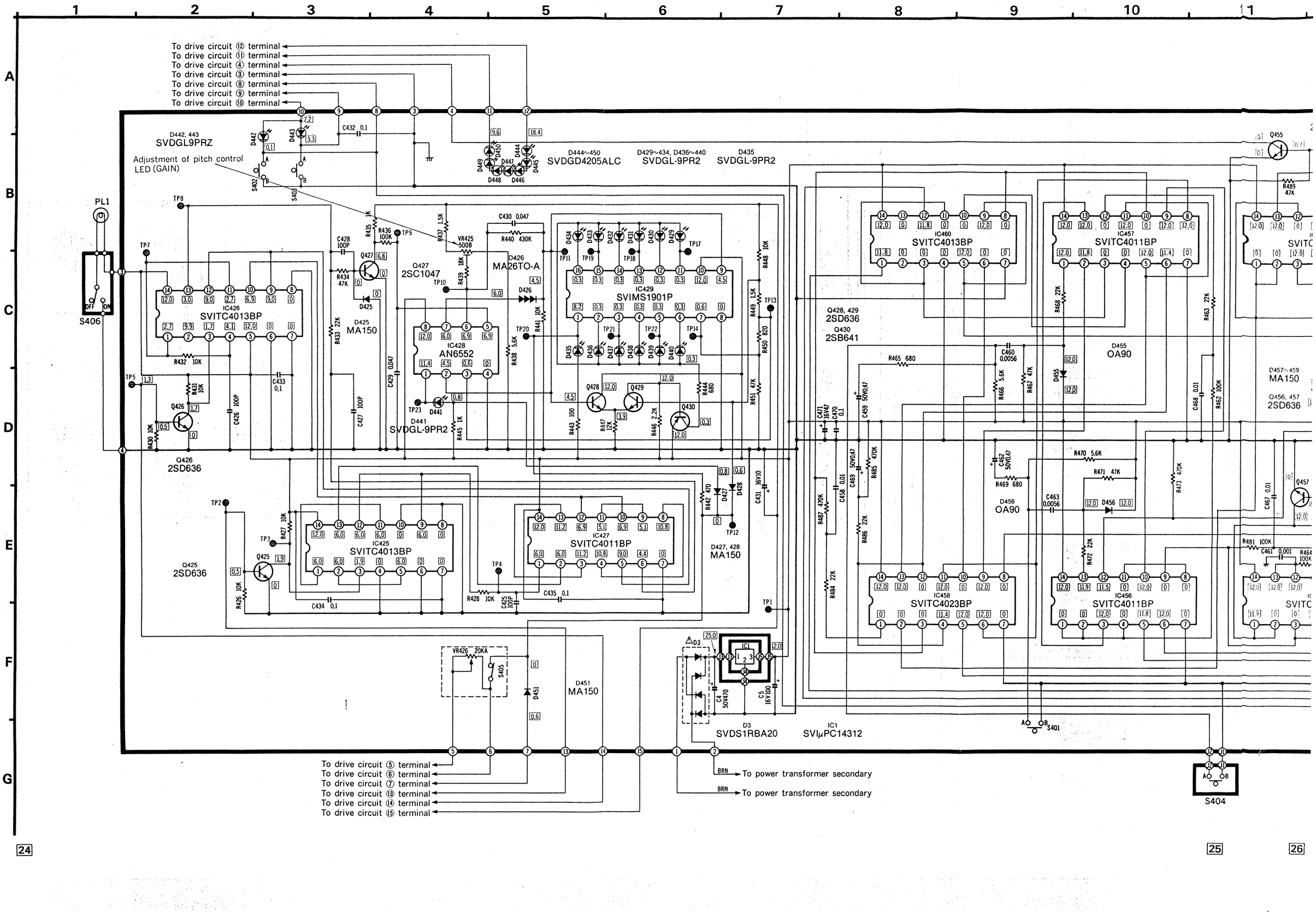
■ DRIVE CIRCUIT BOARD

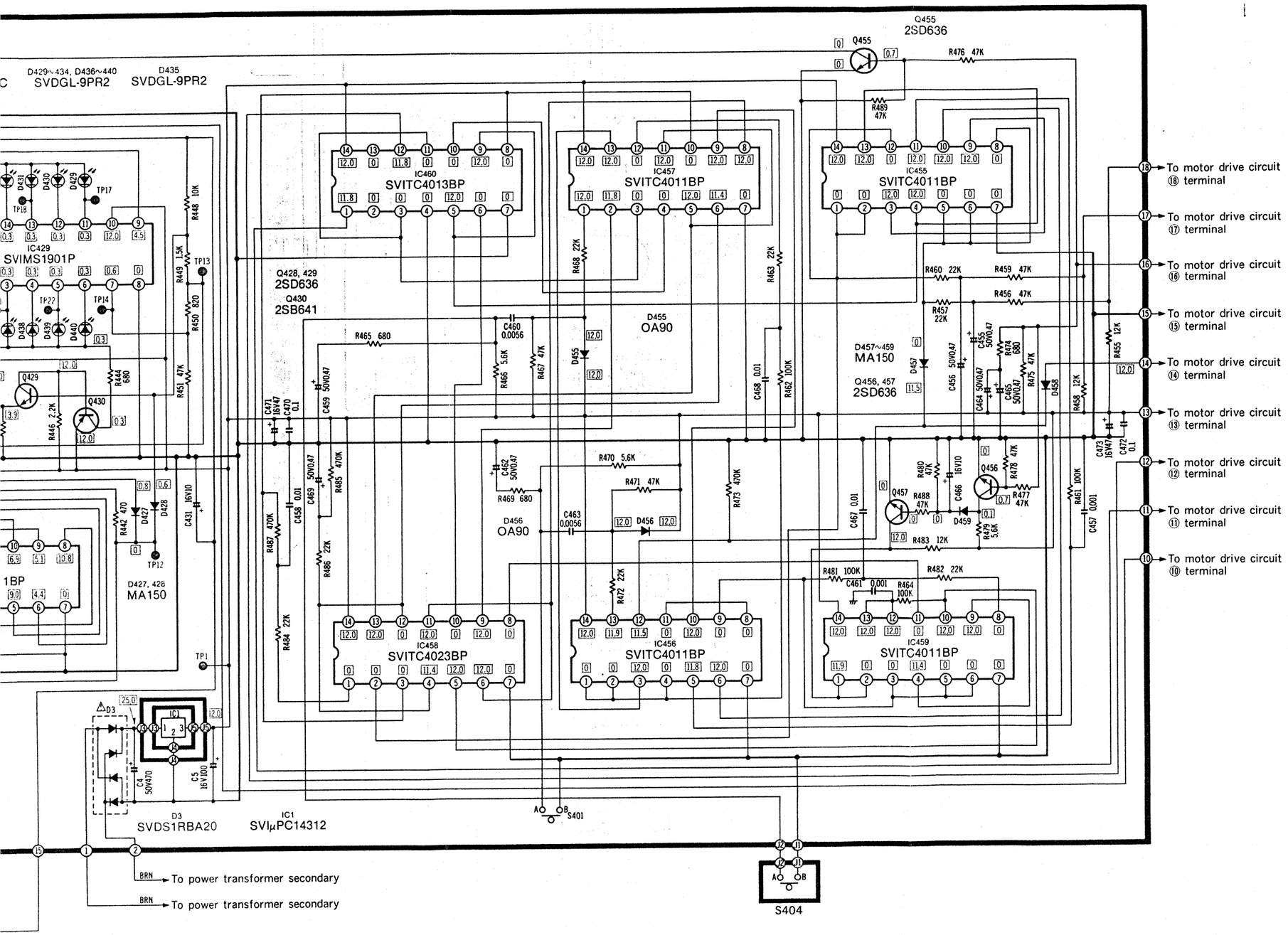


■ TERMINAL GUIDE OF TRANSISTOR AND IC

SVIμPC14312	AN6675	AN6680
AN6682	SVITC4011BP	SVITC4013BP
AN6552	SVIMSM1901P	2SD389
2SD637, 2SD638, 2SD636, 2SB641, 2SB643	2SC1846	2SC1328, 2SC1047

■ SCHEMATIC DIAGRAM 1 (Control Circuit Board)

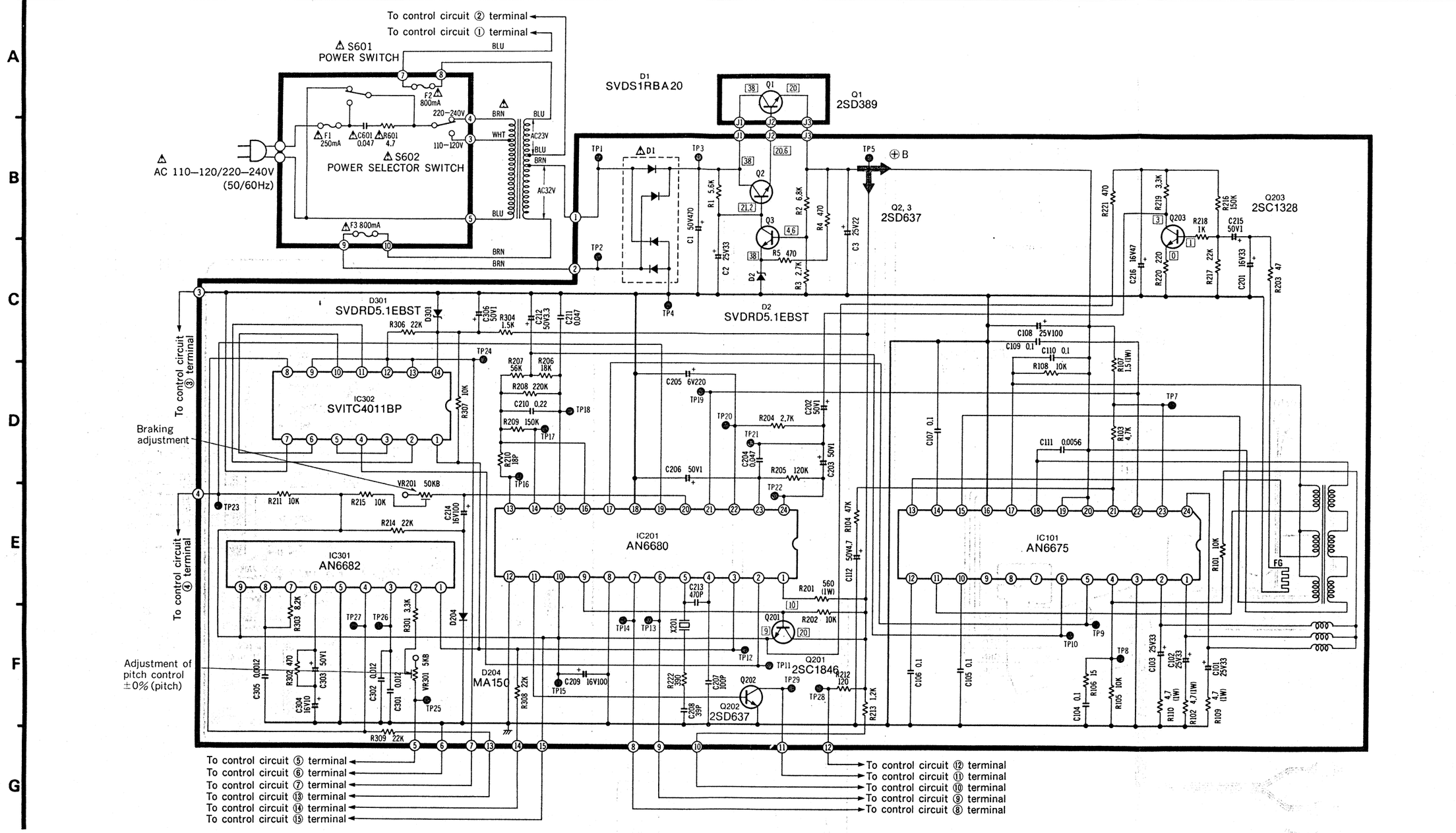




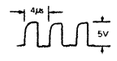
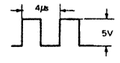
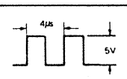
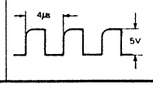
NOTES:

1. **S401:** Stop switch in **"OFF"** position. (not-push condition)
2. **S402:** Speed selector switch (33 r.p.m.) in **"ON"** position. (push condition)
3. **S403:** Speed selector switch (45 r.p.m.) in **"OFF"** position. (not-push condition)
4. **S404:** Cueing switch in **"OFF"** position. (not-push condition)
5. **S405:** Pitch control switch in **"ON"** positon. (Center position)
6. **S406:** Stylus-illuminator switch in **"OFF"** position.
7. **S407:** Cueing-up detector switch in **"ON"** position. (Arm Lift—down position)
8. **S408:** Cueing-down detector switch in **"ON"** position. (Arm Lift—down position)
9. **S501:** Auto-return switch in **"ON"** position.
10. **S601:** Power switch in **"ON"** position.
11. **S701:** Muting switch in **"OFF"** position.
12. **S602:** Power selector switch in **"220-240V"** position.
13. ▭ Indicated voltage values are the voltage when the arm lift is at a stop in the lowest position.
14. ( ) Indicated voltage values are the voltage when the arm lift is moving up. (The arm drive motor is rotating reversely at a high speed.)
15. [ ] Indicated voltage values are the voltage when the arm lift is moving down. (The arm drive motor is rotating in forward direction at a low speed.)
    *The drive circuit IC voltage and wave form are not indicated inside the circuit. So, refer to the Voltage and Wave Form of Each IC Terminal.
16. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
17. This schematic diagram may be modified at any time with the developent of new technology.
18. ⚠ indicates that only parts specified by the manufacturer be used for safety.

■ SCHEMATIC DIAGRAM 2 (Drive Circuit Board)



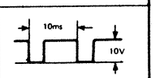
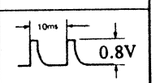
IC302 (SVITC4011BP)

	Start	Stop		Start	Stop		Start	Stop
①	Same as at right		⑤	Same as at right		⑨	0.6V	0.6V
②	5V	5V	⑥	5V	5V	⑩	5V	5V
③	Same as at right		⑦	0V	0V	⑪	5V	5V
④	5V	5V	⑧	Same as at right		⑫	0.6V	0.6V
						⑬	0.6V	0.6V
						⑭	5V	5V

27

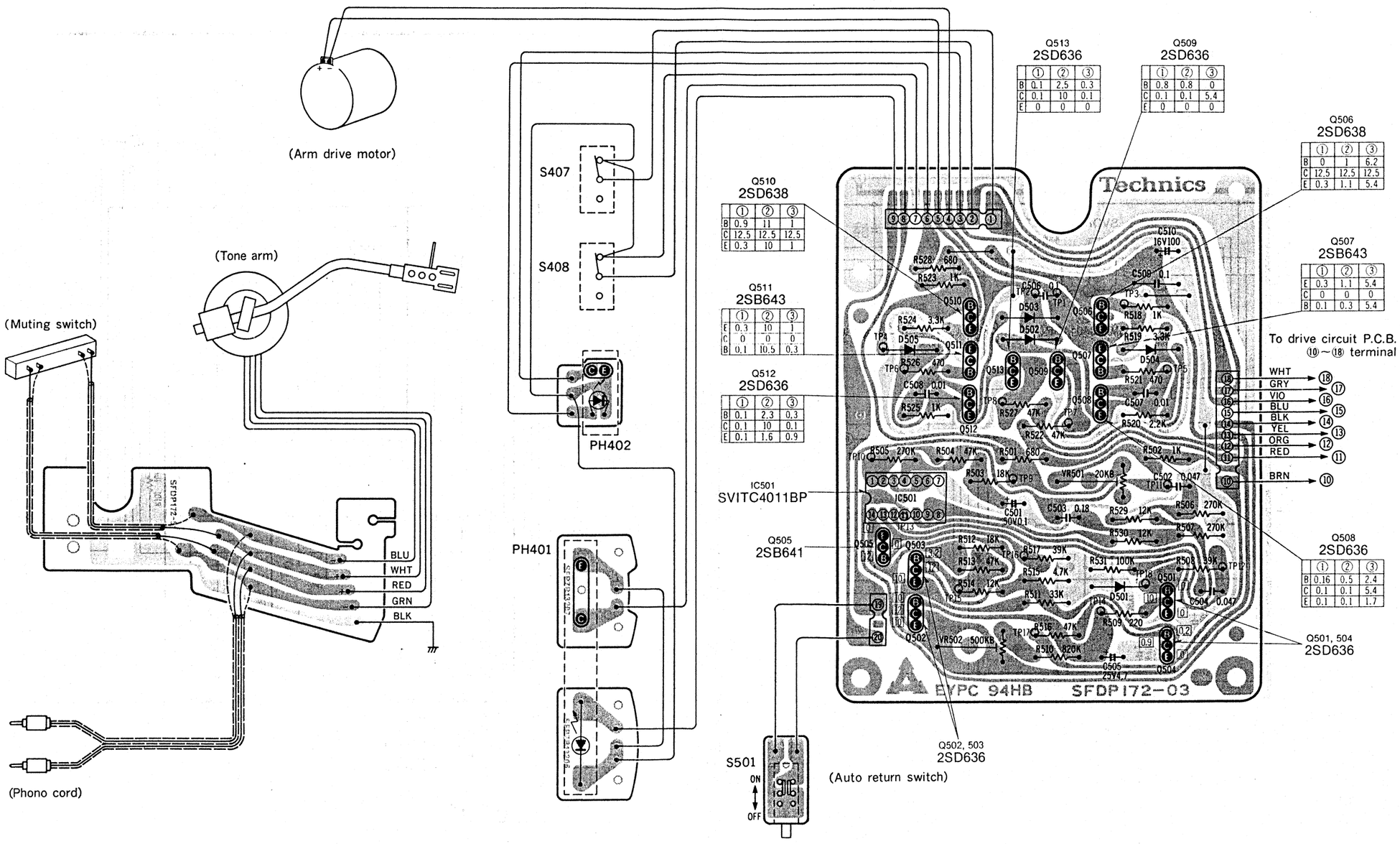
28

Q202 (2SD637)

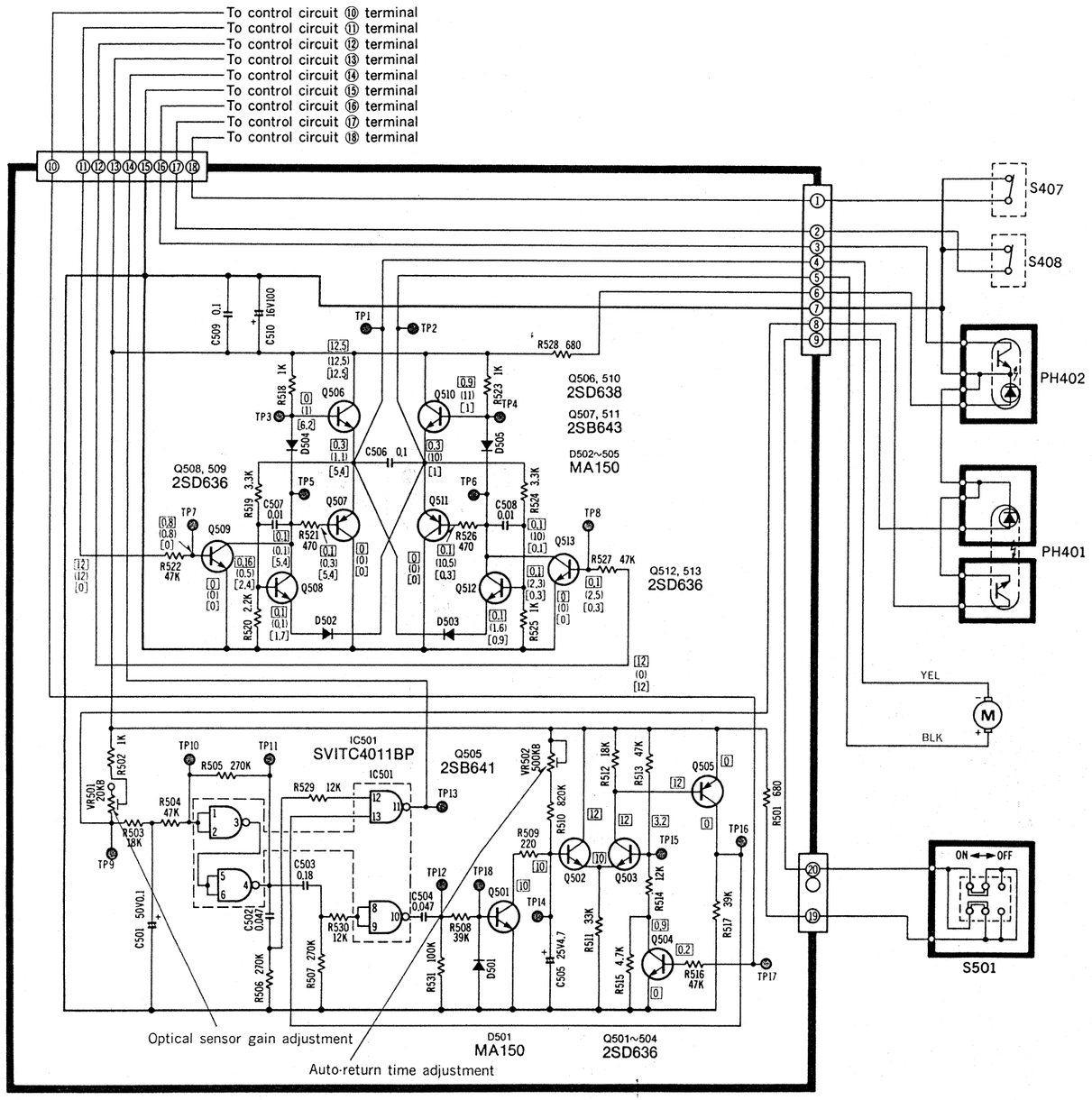
	Start	Stop
E	0V	0V
C	Same as at right	
B	Same as at right	

■ TONE ARM DRIVE CIRCUIT BOARD

Earth (Ground) Lines

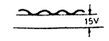
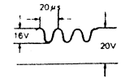
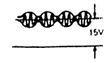
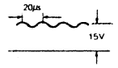
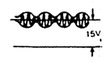
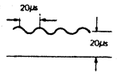
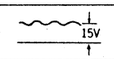
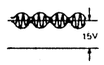
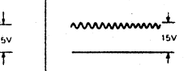


■ SCHEMATIC DIAGRAM 3 (Tone Arm Drive Circuit Board)

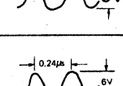
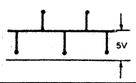
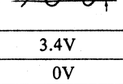
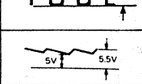
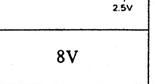
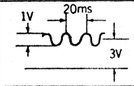
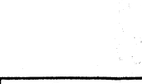


■ REFERENCE VOLTAGE AND WAVEFORM AT EACH IC

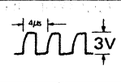
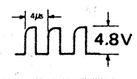
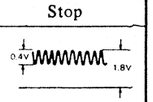
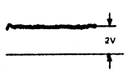
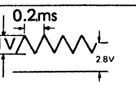
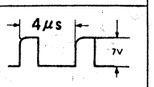
IC101 (AN6675)

	Start	Stop		Start	Stop		Start	Stop
①	10V	1.7V	⑫		15V	⑱	Same as at right	
②	10V	1.7V						
③	0V	0V						
④	5V	1.7V	⑬			⑲	20V	20V
⑤	5V	5V				⑳	20V	20V
⑥	5V	6.6V				㉑	20V	20V
⑦	0V	0V	⑭	15V	15V	㉒	1.4V	0V
⑧	5V	5V	⑮			㉓	20V	20V
⑨	0V	0V				㉔	10V	1.7V
⑩		15V	⑯	0V	0V			
⑪			⑰	15V	15V			

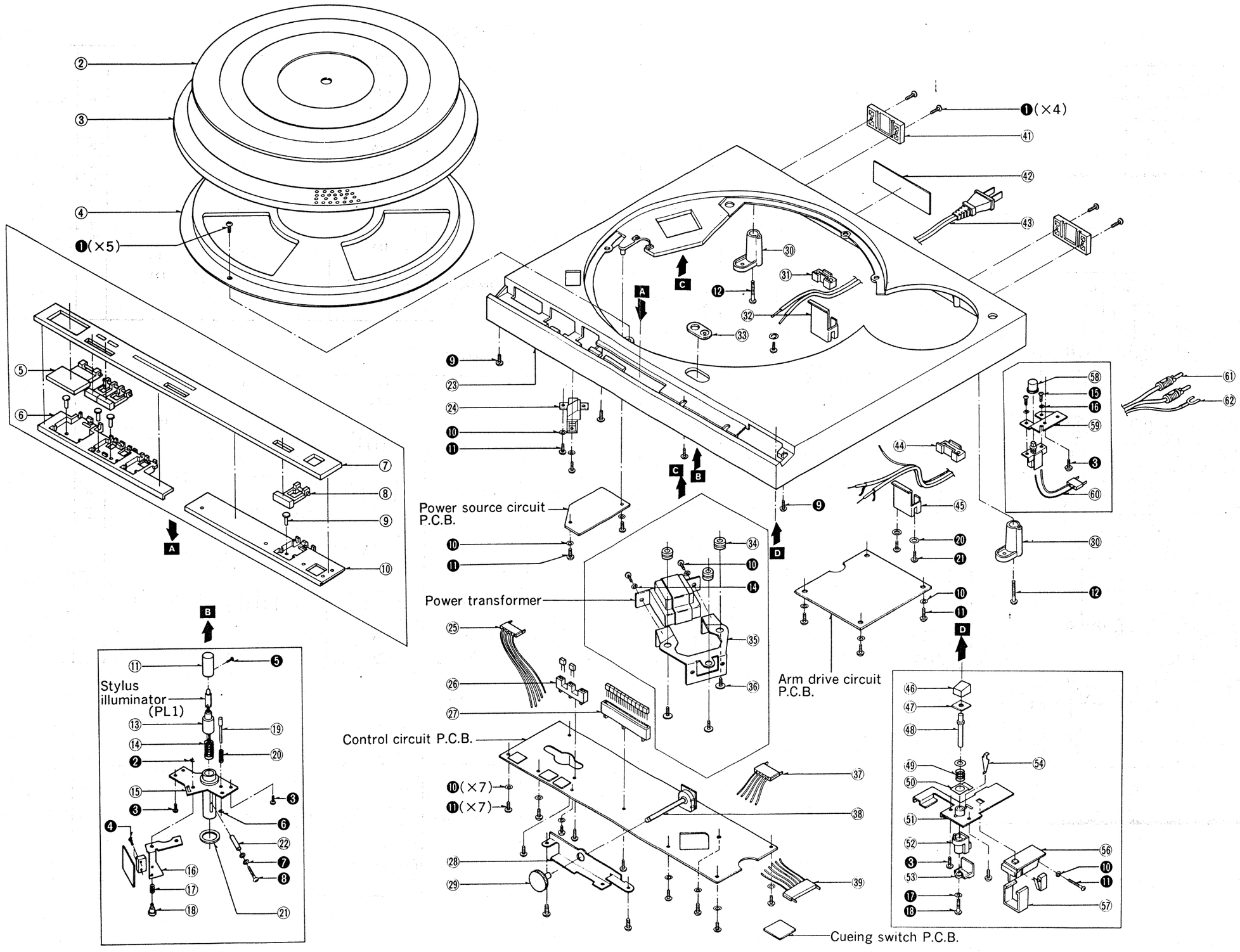
IC201 (AN6680)

	Start	Stop		Start	Stop		Start	Stop
①	2.5V	2.5V	⑧	0V	0V	⑯	5V	2.5V
②	Same as at right		⑨	10V	10V	⑰	5V	5V
			⑩	9V	9V	⑱	0V	0V
③	Same as at right		⑪	Same as at right		⑲	7V	0.14V
			⑫	0V	0V	⑳	0.4V	5.8V
④	Same as at right		⑬		0.2V	㉑	1.5V	0.2V
						㉒	3V	3V
⑤	Same as at right		⑭			㉓		3V
						㉔	2.8V	2.8V
⑥	3.4V	3.4V	⑮		8V			
⑦	0V	0V						

IC301 (AN6682)

	Start	Stop		Start	Stop		Start	Stop
①	Same as at right		④	Same as at right		⑧	Same as at right	
②	Same as at right		⑤	0V	0V	⑨	9V	9V
			⑥	3.9V	3.9V			
③	Same as at right		⑦	Same as at right				

■ EXPLODED VIEW (Main Base)



■ REPLACEMENT PARTS LIST (Main Base and Bottom Base Parts)

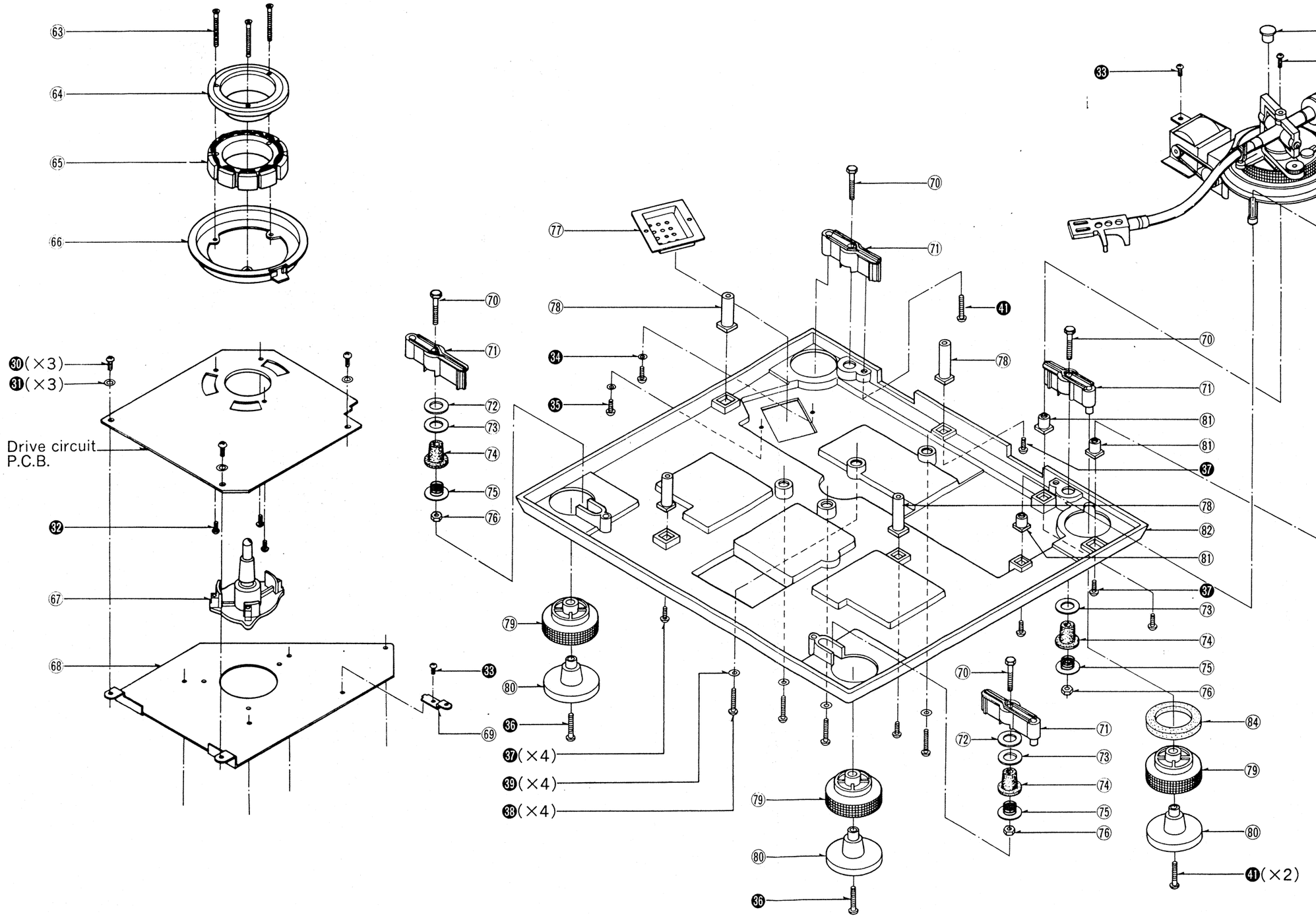
Notes: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.

SL-1700MK2(XG) → [XG] SL-1700MK2(XGF) → [XGF] SL-1700MK2(XGB) → [XGB]
SL-1700MK2(E) → [E] SL-1700MK2(XA) → [XA] SL-1700MK2(XGE) → [XGE]
SL-1700MK2A(XA) → [AXA] SL-1700MK2A(XG) → [AXG] SL-1700MK2A(E) → [AE]
SL-1710MK2(XG) → [10XG] SL-1710MK2(E) → [10E] SL-1710MK2A(XG) → [10AXG]
SL-1710MK2A(E) → [10AE]

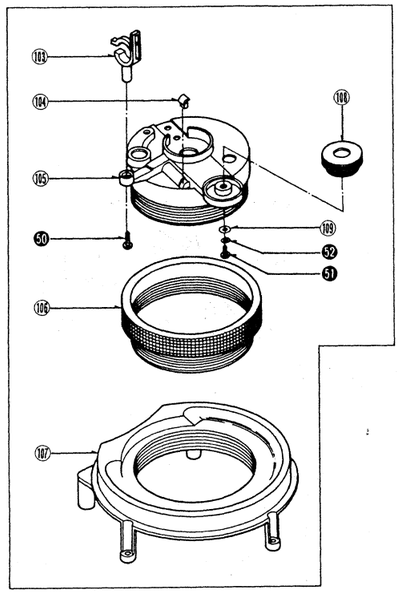
Ref. No.		Part No.	Part Name & Description
CABINET and CHASSIS PARTS			
1		SFAD172-01E	Dust Cover
2		SFTG172-01	Turntable Mat
3		SFTE172-01Z	Turntable
4		SFUM172-05	Cover, Turntable
5		SFKT172-02	Button, Start/Stop Switch
6		SFUM172-02	Bracket (A), Operation Panel
7		SFUM172-01	Panel, Operation
8		SFKT172-03	Button, Speed Selector, Cueing Switch
9		SFUM172-11	Pin, Switch
10		SFUM172-03	Bracket (B), Operation Panel
11		SFKK172-01	Cover, Lamp
13		SFXB172-02	Boss, Drive
14		SFQA172-01	Spring, Drive Boss
15		SFUP172-01E	Plate Assembly, Stylus Illuminating Lamp
16		SFUP172-03	Plate, Lock Operation
17		SFQA001-02	Spring, Lock Operation Plate Pin
18		SFXJ172-05	Pin, Lock Operation Plate M'tg
19		SFXJ172-01	Pin, Lock Canceler
20		SFQA520-01	Spring, Lock Caneler Pin
22		SFXO172-01	Pin, Guide
23 [E, XG, XGB, XGF, AE XGE, XA, AXA, AXG]		SFAC172-01	Cabinet (Silver)
23 [10E, 10XG, 10AE, 10AXG]		SFAC173-01	Cabinet (Black)
24		SFUM130-01	Cover, Neon
25		SFDJ172-02E	Connector, 7 Pin
26		SFUM170-10	Spacer (A), Speed Selector LED
27		SFUM172-09	Spacer (B), Speed Selector LED
28		SFUP172-06	Bracket, Pitch Control Knob Plate
29		SFKT172-04	Knob, Pitch Control
30		SFAZ172-01	Supporter, Insulator
31		SFUM170-06	Spacer, AC Cord
32		SFUM170-05	Clamper, AC Cord
33		SFUM172-04	Ornament, Stylus Illuminating Lamp
34		SFGC132-01	Spacer (Rubber), Power Transformer Bracket
35		SFUP132-03	Bracket, Power Transformer
36		SFXG132-02	Screw, Power Transformer Bracket M'tg
37		SFDJ172-01E	Connector, 6 Pin
38		SFUP172-09	Bracket, Volume Shaft
39		SFDJ172-03E	Connector, 9 Pin
40		SFAT172-01A	Hinge Ass'y
41		SFUM170-07	Case, Hinge Ass'y
42 [E, AE, 10AE]		SFNN172S01	Name Plate
42 [XG, XGF, XGB, AXA, XA AXG]		SFNN172X01	Name Plate
42 [10E]		SFNN173S01	Name Plate
42 [10XG,10AXG]		SFNN173X01	Name Plate
42 [XGE]		SFNN172G01	Name Plate
43	⚠	RJA23ZC	AC Cord
43 [XGE]	⚠	RJA45ZC	AC Cord
44		SFUM170-06	Spacer, Phono Cord
45		SFUM170-11	Clamper Phono Cord
46		SFKT172-01	Button, Power Switch
47		SFUZ172-03	Spacer, Power Switch Button
48		SFXJ172-03	Shaft, Power Switch Button
49		SFQA172-02	Spring, Power Switch
50		SFUP172-04	Supporter, Power Switch Plate
51		SFUP172-02E	Bracket, Power Switch M'tg Plate Assembly
52		SFUM001-11	Cam, Power Switch
53		SFUM132-07	Cam, Power Switch
54		SFUP001-12	Bracket, Power Switch
56		SFUM132-05	Holder, Power Switch
57		SFUM132-06	Holder, Power Switch

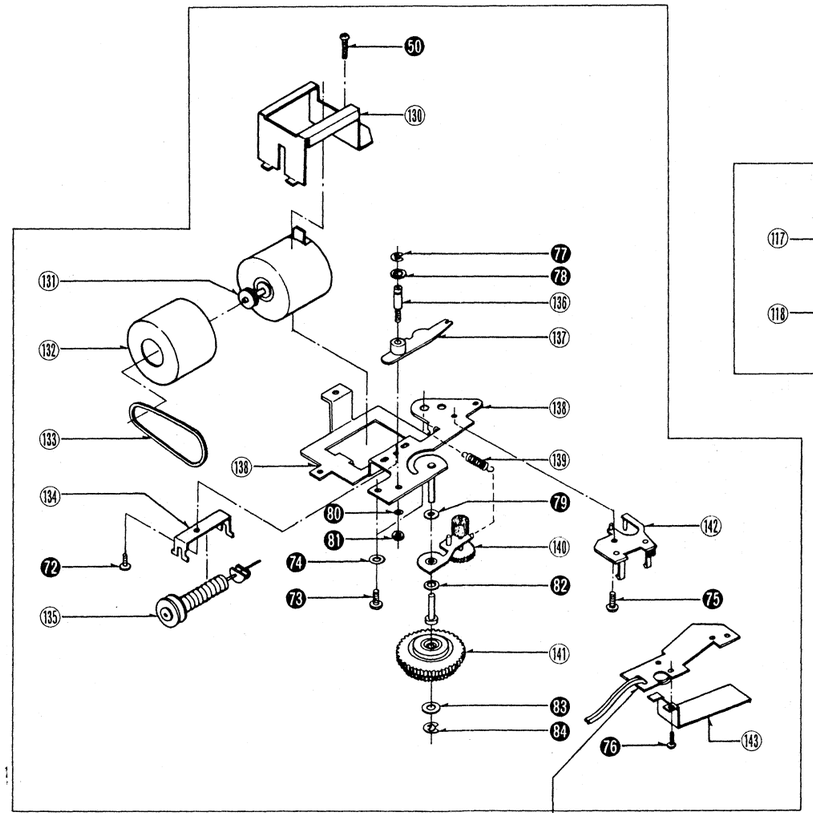
Ref. No.		Part No.	Part Name & Description
58		SFKT132-07	Knob, Auto Return Switch
59		SFUP172-10	Bracket, Auto Return Switch
60		SFDJ172-04E	Connector, 3 Pin
61		SFDH028-01	Phono Cord
62		SFEL028-01E	Ground Wire
63		SFXGQ20-03	Screw, Stater Frame M'tg
64		SFMGQ20-01	Cover, Stater Frame Ass'y
65		SFMG520-31A	Stater Frame
66		SFMZ172-01E	FG Detector Coil Ass'y
67		SFMZQ20-01A	Shaft, Stater Frame Ass'y
68		SFUP172-05	Bracket, Stater Frame M'tg Plate
69		SFUP172-08	Bracket, Drive P.C.B. Ass'y
70		XVG4C30	Screw, Insulator (A) M'tg
71		SFUM172-06	Insulator (A)
72		SFXW172-01	Washer, Insulator (A)
73		SFXW172-02	Washer, Insulator
74		SFGA170-01	Rubber, Insulator
75		SFQC170-01	Spring, Insulator
76		SFXG170-02E	Nut, Insulator (A) M'tg
77		SFUP132-01	Cover, Power Transformer
78		SFUM172-12	Spacer, Clamper
79		SFUM172-07	Insulator Cup
80		SFGA172-01	Insulator Rubber
81		SFUM172-13	Spacer, Tone Arm
82		SFAU172-01	Bottom Board
83 [E, XG, XGF, XGB, AXA, XGE, XA, AE, AXG]		SFGK132-01	Cap, Rubber
83 [10E, 10XG, 10AXG, 10AE]		SFGK133S01	Cap, Rubber
84		SFUZ172-01	Rubber Cushion, Insulator
SCREWS, WASHERS and CIRCLIPS			
❶		**XTN3+8BFZ**	Screw
❷		**XUC2FT**	Circlip
❸		**XTN3+8B**	Screw
❹		**XSN2+8**	Screw
❺		XSN17+3FY	Screw
❻		**XUC25FT**	Circlip
❼		**XWA3B**	Washer
❽		XSN3+14S	Screw
❾		XTV3+8GF	Screw
❿		**XWG3**	Washer
⓫		**XTB3+8BFN**	Screw
⓬		XTN4+20J	Screw
⓭		**XTN4+10B**	Screw
⓮		**XWA4B**	Washer
⓯		**XSN3+8S**	Screw
⓰		**XWA3B**	Washer
⓱		**XWA3B**	Washer
⓲		**XSN3+10S**	Screw
⓳		XWE3F8	Washer
⓴		**XTN3+12BFZ**	Screw
㉑		**XTB3+8BFZ**	Screw
㉒		**XWG3**	Washer
㉓		XTN3+8H	Screw
㉔		**XTN3+8B**	Screw
㉕		**XWA3B**	Washer
㉖		**XSN3+10S**	Screw
㉗		**XTN4+45B**	Screw
㉘		XTN4+14GFZ	Screw
㉙		**XTB3+25BFN**	Screw
㉚		**XWG3**	Washer
㉛		XTN3+8GFZ	Screw
㉜		**XTN4+25B**	Screw

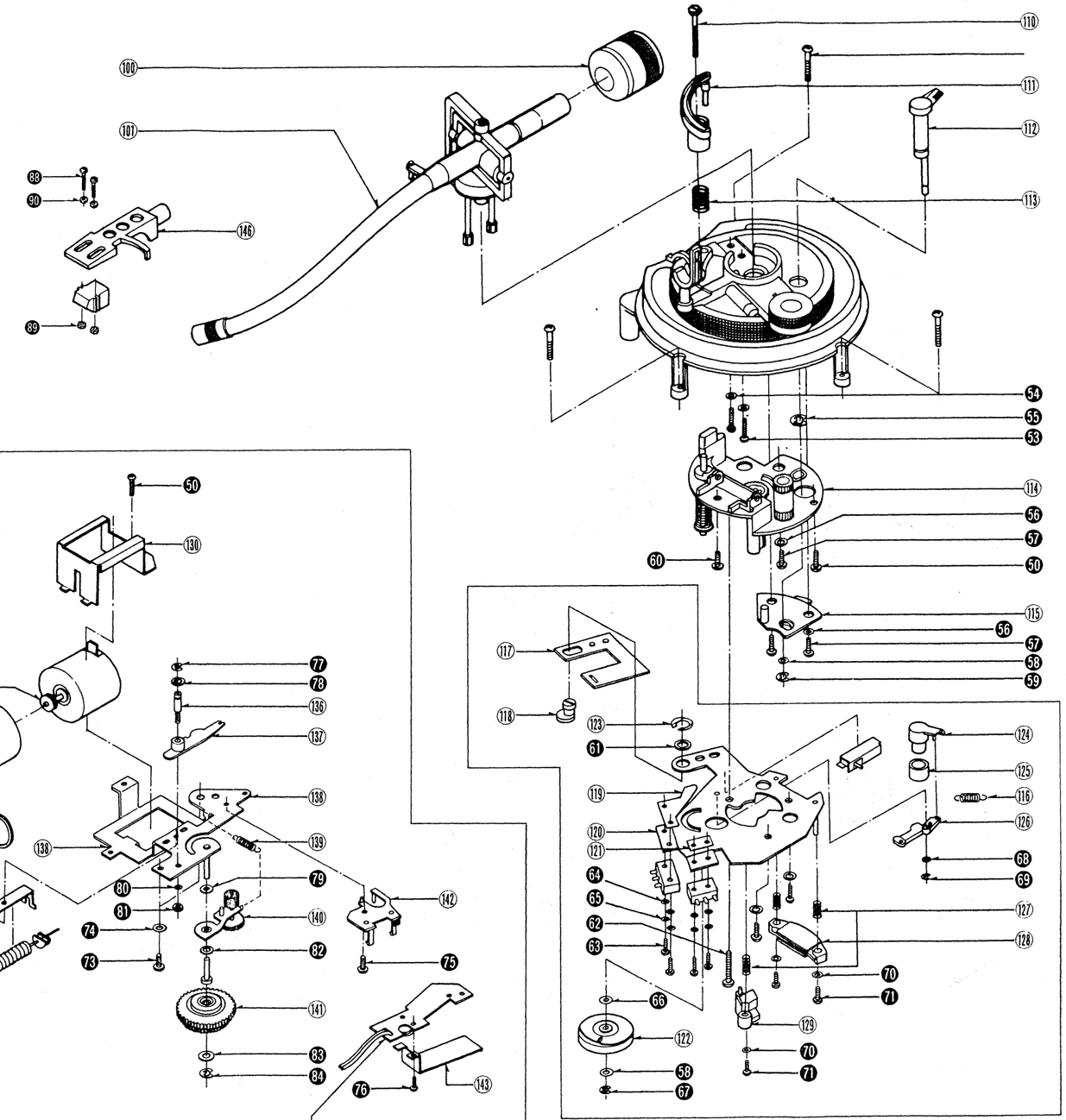
■ EXPLODED VIEW (Bottom Base)

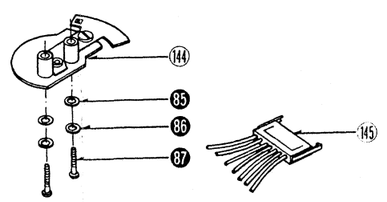


■ EXPLODED VIEW (Tone Arm and Arm Base)









Ref. No.		Part No.	Part Name & Description
		SCREWS, WASHERS and CIRCLIPS	
50		**XTN3+8B**	Screw
51		**XTN26+6B**	Screw
52		**XWG26**	Washer
53		**XSN3+8S**	Screw
54		**XWA3B**	Washer
55		**XUC5FT**	Circlip
56		**XWG3**	Washer
57		**XTV3+6BFN**	Screw
58		XWE4A10EW	Washer
59		**XUC25FT**	Circlip
60		**XTV3+6BFN**	Screw
61		XWG5E12BW	Washer
62		**XTN3+25B**	Screw
63		XSN23+12	Screw
64		**XWE26BW**	Washer
65		**XWA26B**	Washer
66		SFXW910-08	Washer
67		**XUC3FT**	Circlip
68		XWE3A6BC	Washer
69		**XUC2FT**	Circlip
70		**XWE26BW**	Washer
71		**XSN26+6**	Screw
72		**XTN3+6B**	Screw
73		**XTV3+8BFN**	Screw
74		**XWG3**	Washer
75		**XTN3+8B**	Screw
76		**XTN3+12B**	Screw
77		**XUC3FT**	Circlip
78		**XWE4A10BW**	Washer
79		XWE4A10EW	Washer
80		**XWA3B**	Washer
81		**XNG3ES**	Nut
82		SFXW172-55	Washer
83		XWE3A6BC	Washer
84		**XUC2FT**	Circlip
85		**XWG3FZ**	Washer
86		**XWA3BFZ**	Washer
87		**XSN3+23BVS**	Screw
88	[AXA, AE, AXG, 10AE, 10AXG] only	SFCZV8801	Screw, Except Product for [E, XG, XGF, XGB, 10E, 10XG, XGE, XA]
89	[AXA, AE, AXG, 10AE, 10AXG] only	SFPEN3302	Nut, Except Product for [E, XG, XGF, XGB, 10E, 10XG, XGE, XA]
90	[AXA, AE, AXG, 10AE, 10AXG] only	SFPEW9601	Washer, Except Product for [E, XG, XGF, XGB, 10E, 10XG, XGE, XA]

■ REPLACEMENT PARTS LIST (Tone Arm and Arm Base Parts)

Note: Part number are indicated on most mechanical parts.
Please use this part number for parts orders.

SL-1700MK2(XG) → [XG] SL-1700MK2(XGF) → [XGF] SL-1700MK2(XGB) → [XGB]
SL-1700MK2(E) → [E] SL-1700MK2(XA) → [XA] SL-1700MK2(XGE) → [XGE]
SL-1700MK2A(XA) → [AXA] SL-1700MK2A(XG) → [AXG] SL-1700MK2A(E) → [AE]
SL-1710MK2(XG) → [10XG] SL-1710MK2(E) → [10E] SL-1710MK2A(XG) → [10AXG]
SL-1710MK2A(E) → [10AE]

Ref. No.		Part No.	Part Name & Description
TONE ARM and ARM BASE PARTS			
100		SFPWG17201K	Balance Weight Ass'y
101 [E, XG, XGF, XGB, AXA, AE, XA, AXG, XGE]		SFPAM17201K	Tone Arm Ass'y (Silver)
101 [10E, 10XG, 10AXG, 10AE]		SFPAM17202K	Tone Arm Ass'y (Black)
102 [E, XG, XGB, XGF, 10E, 10XG, XGE, XA, XGE]		SFPCC31001K	Head Shell
102 [AXA, AE, AXG, 10AE, 10AXG]		SFPCC31002K	Head Shell
103		SFPRT17201K	Arm Rest
104 [10E, 10XG, 10AXG, 10AE]		SFPZB17206	Rubber, Lift Cap (Black)
104 [E, XG, XGF, XGB, AXA, AE, AXG, XGE]		SFPZB17205	Rubber, Lift Cap (Silver)
105 [10E, 10XG, 10AXG, 10AE]		SFPKD17205	Arm Base (Black)
105 [E, XG, XGF, XGB, AXA, AE, AXG, XGE]		SFPKD17203	Arm Base (Silver)
106		SFPKB17201S	Ring, Operation
107		SFPKD17201	Bracket, Arm Base
108		SFPAB17206	Knob, Anti-skate Force Control
109		SFPEW17201	Washer, Anti-skate Force Control Knob
110		SFXG829-1	Screw, Tone Arm Lift Adjustment
111		SFPRT17202K	Lift Ass'y
112		SFPZB17202	Knob, Arm Base Lock
113		SFQA829-03	Spring, Lift Ass'y
114		SFPAB17201K	Rift Ass'y
115		SFPZB17203K	Plate, Position Fix
117		SFUM172-58	Base, Muting Switch
118		SFXJ172-60	Shaft, Operation
119		SFUP172-60	Bracket, Switch Adjustment Plate
120		SFUK172-52E	Movable Base Assembly
121		SFUP172-59	Bracket, Switch Adjustment Plate
122		SFUM172-55	Cam, Lift
123		SFXW130-01	Clip, Muting Switch Base
124		SFUM172-57	Lever, Brake
125		SFGT172-51	Tube, Rubber
126		SFUM172-56	Lever, Muting
127		SFQA172-52	Spring, Base Supporter Assembly
128		SFPZB17251	Base, Suppqrter Assembly
129		SFUM172-59	Rest, Senser Assembly
130		SFUP172-55	Bracket, Motor Assembly
131		SFMH172-51E	Motor Assembly
132		SFGZ172-52	Cover, Motor
133		SFGB172-51	Belt
134		SFUP172-58	Bracket, Worm Assembly
135		SFUG172-53E	Worm Assembly
136		SFXJ172-52	Shaft
137		SFUP172-52E	Bracket
138		SFUK172-51E	Bracket Arm
139		SFQH172-51	Spring
140		SFUP172-51A	Bracket
141		SFUG172-52E	Base, Operation Gear Ass'y
142		SFUM172-61	Bracket, PU Output Cord
143		SFUP172-56	Shield Case
144		SFUM172-60A	Tone Arm Fixing Plate Ass'y
145		SFDJ172-05E	Socket, 9 Pin
146 [AXA, AE, AXG, 10AE, 10AXG] only		EPC207CK	Cartridge, Except Product for [E, XG, XGF, XGB, 10E, 10XG, XGE, XA]
ACCESSORIES			
A1		SFWE212-01	Adaptor, 45 r.p.m.
A2 [E, 10E, XG, XGF, 10XG XGB, XGE, XA]		SFPEN3302	Nut, Cartridge, Except Product for [AXA, 10AXG, AE, 10AE, AXG]
A3 [E, 10E, XG, XGF, 10XG XGB, XGE, XA]		SFPEW9601	Washer, Head Shell, Except Product for [AXA, 10AXG, AE, 10AE, AXG]
A4 [E, 10E, XG, XGF, 10XG, XGB, XGE, XA]		SFCVZ8801	Screw, Cartridge, Except Product for [AXA, 10AXG, AE, 10AE, AXG]
A5 [E, 10E, XG, XGF, 10XG, XGB, XGE, XA]		SFPEV9801	Screw, Cartridge, Except Product for [AXA, 10AXG, AE, 10AE, AXG]
A6 [E, 10E, XG XGF, 10XG, XGB, XGE, XA]		SFKO135-01	Overhang Gauge, Except Product for [AXA, 10AXG, AE, 10AE, AXG]
A7		SFPZB3501	Shell Weight
A8 [AXA, XA] only		SFKDI19118	2 PIN Plug
PACKINGS			
P1 [E, XG, XGB, AXA, XGE, XA]		SFHP172M01	Carton
P1 [10E, 10XG]		SFHP173S01	Carton
P1 [XGF]		SFHP172C01	Carton
P1 [10AXG, 10AE]		SFHP173Q01	Carton
P1 [AE, AXG]		SFHP172A01	Carton
P2		SFHH172-01	Pad, Front
P3		SFHH172-02	Pad, Rear
P4		SFHD172-01	Pad, Top
P5		SFHD172-02	Pad, Turntable
P6		SFYH60X60	Polyethylene Cover, Turntable Unit
P7		SFYH60X60	Polyethylene Cover, Dust Cover
P8		SFYH40X45	Polyethylene Cover, Turntable
P9 [E, AE, 10E, 10AE]		SFNU172S01	Instruction Book, Printed Matter
P9 [XG, XGF, XGB, AXA, 10XG, 10AXG, AXG, XA]		SFNU172X01	Instruction Book, Printed Matter
P9 [XGE]		SFNU172G01	Instruction Book, Printed Matter

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